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CLINICAL LECTURES ON SURGERY,

DELIVERED AT THE

HOTEL DIEU, PARIS,

BY

M. LE BARON DUPUYTREN,

During the present Session, 1832-3.

[Revised (before translation) by the Baron himself in the Fasciculi of his "Lecons Orales de Clinique Chirurgicale," published periodically by G. Bailliere, Paris.]

FOREIGN BODIES AND GROWTHS IN THE AIR-PASSAGES.

THE introduction of a foreign body into the air-passages, is always a very serious accident. If the patient be not assisted, he may, in fact, quickly perish. An operation does not always remedy the accident. Under more favourable circumstances, however, the foreign substance presents itself at the opening that is effected, and escapes on a violent expiration, or sometimes it is seized with a forceps, or it is found between the lips of the wound. But in all cases we cannot mistake the utility of an operation which admits of no substitute, for the opening of the glottis, which readily permits the introduction of a haricot*, for instance. does not, in the majority of cases, allow of its escape, and alterations of the lungs consequently take place, which always prove fatal to the patient.

CASE I.

Fall of a small Coin into the Air-passages. Death in ten years.

A friend of mine, once playing with children, kept throwing a half-franc piece into the air, and catching it in his mouth. In one of these movements the piece fell into the pharynx at the moment of inspiration, and from thence got into the larynx and trachea. The cough and peculiar sound produced, sufficiently indicated the nature of the accident. The coin sometimes remained fixed for several hours, during which period the respiration was regular, but sometimes it was impelled towards the larynx, and then great pain was occasioned by the percussion of the parts of which that delicate organ is composed. The patient always hoped that the haricot would be expelled, and he consequently refused to submit to any operation. This lasted for five years, after which time the piece became impacted in a bronchial tube, and caused but little uneasiness. The patient was then obliged to go to India, and symptoms of phthisis there declared themselves gradually. Ten years after the accident he died, and the coin was found embedded in a tubercular excavation. At his death, the patient was thirty-six years old, and he was naturally of a very robust constitution.

We see by this case, that a foreign body of small volume and very hard consistence could not escape by the glottis, although presenting a form calculated to facilitate its exit. Sometimes, however, the substance introduced is forcibly expelled, as I had occasion to observe in the case of an advocate's lady. Her case also showed how necessary it is to prevent, by all means in our power, the dangerous accidents which the continued presence of a substance of this nature in the air-passages is so strongly calculated to produce.

CASE II.

Bean in the Trachea—Early Operation—Recovery.—Cautions to Operators.—Diagnosis.

The following very curious instance still further substantiates this precept. A little girl, aged eight, stole a red haricot from a grocer, and swallowed it hastily; the form and lightness of this substance rendered it more likely than any other to escape from the glottis by the impulse of the expired air. The accident occurred on the Thursday at three p. m. M. Delens and several other medical men who saw the patient, prescribed an emetic, which occasioned vomiting, but the haricot still remained in the air-passages. The night and part of the next day were passed in alternate periods of calm and suffocation; and on the evening of Friday the child was brought

* A "haricot" is a small white bean, something like the Spanish "caravanse," of which our continental neighbours make some excellent dishes.—*Tr.*

to the Hôtel Dieu. During the night, the bad symptoms were renewed, and reached a fearful pitch of intensity. The next morning, at the visit, I ascertained their nature,—the sound of a foreign body being heard in the trachea, a peculiar sound, by-the-by, which is most easily perceived by applying the ear to the top of the sternum, or even by simply listening to the respiratory sound, close to the chest. The efforts of coughing were very violent, accompanied by nausea and glairy vomiting. The indication to be fulfilled was evident, and on Saturday the 13th February, at ten a.m., she was brought into the amphitheatre. At the moment of operation, we again sought to discover the sound produced by the foreign body, but it no longer existed, doubtless on account of the haricot being then retained in a bronchial tube. It being certain, however, that the haricot had not escaped already, the opening of the trachea was proceeded with. An incision, an inch long, was practised exactly on the median line of the neck, a little above the upper part of the sternum. The skin and the cellular tissue were cautiously divided, the muscles covering the trachea turned aside, and the trachea itself exposed, without its being necessary to tie a single vessel. Several rings with their uniting membranes were then divided vertically. The incision being prolonged downwards, the edges of the wound were held apart by means of a dressing forceps, and after some rather violent efforts of expiration, the haricot, enveloped in bloody mucus, escaped by the new opening, and fell on the chest of the little patient.

The wound was carefully cleaned from the bloody froth which covered its edges. A lint cloth, smeared with cerate, was placed on the neck, and there maintained by several compresses and loose turns of a roller. The patient cried a great deal during the operation, and, what is remarkable, retained her voice even when the artificial opening was made in the trachea, and gave issue to the expired air. There occurred, moreover, no accident dependent on the operation itself. Nevertheless we should point out a difficulty. Between the sterno-thyroid and sterno-hyoid muscles, and before the trachea, there is a space filled with cellular tissue, in which the instruments lodge as they would in the trachea itself. The incision of the elastic rings being made, the ends of the ring forceps cannot sometimes be engaged in it, they remaining in this cellular space. A little attention will at once enable us to discover and avoid this false passage.

The haricot extracted was about five lines long by three broad, and as many thick, and rather irregular in consequence of the swelling of its cotyledons. In some cases of this kind they have even advanced to germination. In the present instance, the small volume of the bean is explained by the short time it remained in the air-vessels. In the evening the symptoms of bronchitis were sufficiently intense to require a bleeding to the extent of two cups. The night was laborious. On Sunday dyspnœa and calm were alternate; the respiration took place almost exclusively through the wound, and was rendered noisy by the adherent mucus. The same evening fifteen leeches were applied to the front of the neck, furnished a great deal of blood, and relieved the patient. The cough became seldom; the night was good, and the feverishness trifling. On the 15th the breathing was easy, with slight hissing through the wound; the skin natural. By the 16th and 17th, the air escaped in very small quantities through the wound, which was perhaps attributable to the swelling of its edges. The articulation was easy and distinct. On the 20th the edges of the wound were closed, emphysema being no longer to be apprehended, in consequence of the mucous tissue which covered the edges of the incision, and rendered the cellular substance completely impermeable. From this moment no accident supervened, and in a few days the relatives of the child took her home, the wound being then reduced to one-third its original size. She came again to the Hôtel Dieu in a month after the operation, and there then only remained an extremely minute opening, giving issue to a fine jet of air.

This case presents several interesting considerations to which I would direct your attention; and, in the first place, let us notice the position in which the patient should be placed for the incision of the soft parts and the trachea, and also after the opening of that tube in order to favour the exit of the foreign body. It is evident that the bending of the head backwards is advantageous, and facilitates the division of the external soft parts, and of the trachea. But this position is, on the contrary, unfavourable to the escape of air, and still more so to that of foreign bodies. In fact, in the case before us, we saw that the incision first made in the trachea did not permit even the issue of air itself. The slight extent of the incision also contributed to this effect. The flexion backwards of course tends to prevent the separation of the edges of the incision. By assuming the contrary position then, and bending the head forwards, we promote the separation, and the exit of the foreign substance. In this position of the head it was that the haricot

was expelled in the case related. Observe then, in your operations, to bend the head *backwards* during the incision, and *forwards* when the incision is completed. With respect to the diagnosis in cases of the presence of a foreign body in the trachea, there is a sign which should be added to those usually advanced as characteristic. I allude to the sensation of a shock against the parietes of the canal, a sensation which may be experienced by the hand and by the ear. It does not, however, always exist distinctly in all persons, or in every period of the case. In fact, the foreign body may become adherent, and then not being displaced by the air, it does not strike against the sides of the tube, or else (enveloped in abundant and thick mucus) the impulse creates a much feebler sound. The mode of dressing pursued also requires some attention. In the case just mentioned, the edges of the wound were not brought together immediately, in order not to expose the patient to the occurrence of emphysema, an event which the cellular tissue readily permits during the first few days, but which is no longer to be dreaded in some days more, when the cellular tissue is rendered compact, and hardened by inflammation. The cure may then be accelerated by bringing together the edges of the wound.

CASE III.

Bean in the Trachea—Operation on the Fifth Day—Cure in a Fortnight.

A child, ætat. 6, living at Savigny, near Paris, was amusing himself on the 18th of May 1822, by flinging haricots into the air and catching them in his mouth, when one abruptly passed the epiglottis, and slipped into the trachea. He was immediately seized with paroxysms of coughing and suffocation, and remained nearly an hour in this painful situation. Some relief having occurred, he took food, soon after which the symptoms recurred; the cough became suffocative; the vomiting frequent; the anxiety extreme. A medical man was called to the child. He believed, on what evidence we know not, that it was in the œsophagus the haricot had stopped, and he sounded this canal at several intervals, and administered emetics, but, as one might suppose, without success. The paroxysm of suffocation continued; there was a loud *rale*, and the little patient complained of intense pain in the trachea, circumstances which probably induced the attendant to apply leeches to the neck. The fifth day, the symptoms became so severe, that the child was brought to the Hôtel Dieu. On the 23rd of May he presented at the visit the following symptoms:—Considerable prostration of strength, chiefly produced by the accident, partly also by his journey; the voice extinct; the countenance puffy; the eyes projecting and injected; the nose and lips blueish; the respiration extremely accelerated, and accompanied by a loud tracheal rattle, not only in the trachea indeed, but in a great extent of the bronchial ramifications. During the movements of inspiration, a sound of friction, or shock like that of a valve, was heard at the base of the larynx. During respiration, a convulsive cough returned at irregular but close intervals, depriving the patient of breath, threatening imminent suffocation, and obliging us to take instant measures to save his life. The child was accordingly placed on its back, the head bent backwards, and an incision made from the lower part of the cricoid cartilage to the upper part of the sternum, dividing the skin and the cellular tissue. An ecchymosis of rather considerable extent, produced by the leech-bites, seemed to increase the difficulty of the operation; however, a second incision laid bare the trachea, and as there escaped but a very minute quantity of venous blood from the edges of the wound, the opening into the trachea was at once effected. Thus the tube being fixed with the thumb and middle-finger of the left-hand, the index-finger was introduced into the external incision as far as the trachea, and a bistoury was guided by the finger to puncture the cartilages; the opening was then slightly enlarged upwards and downwards, and the air escaped mixed with blood and mucus. A moment's rest was now given to the patient, and then the tracheal opening was still more elongated, with a button-ended bistoury, to the extent of an inch, or an inch and a quarter. The ends of a ring forceps were then introduced between the lips of the wound, so as to separate them, and facilitate the escape of the foreign body, which twice presented itself to the wound. An attempt was made to lay hold of it, and with partial success, for a portion was removed, the rest being brought back at the time by a powerful inspiration. It was a haricot, as the child had stated, and had acquired a considerable size. Immediate relief was experienced. A great quantity of thick mucus, mixed with blood, escaped from the wound, the edges of which were kept apart in order to prevent emphysema. The patient was put to bed; the wound dressed simply with a perforated cloth dressed with cerate, on which charpie and a compress were employed. Barley tisane, &c., for drink.

24. Lividity of the nose, lips, and cheeks, now replaced by a considerable degree of

redness; fever during the day; much discharge of mucus through the wound; cough frequent; nevertheless the night not bad; some sleep, mucous rattle in a great extent of the anterior and superior region of the lungs; pulse weak and wretched before the operation, now forcible, and even rather hard and frequent; skin hot and moist; respiration accelerated; leeches to the base of the neck; the same dressing as before, and the edges of the wound to be still kept apart; drink, &c.

25. The day and preceding night pretty good, and the bronchial and tracheal irritation somewhat calmed by the leeches. The face less coloured; the respiration a little less embarrassed, though still frequent; pus and mucus discharged from the wound; mucous *rale*. Belly free from pain, but hard; constipation for three days; considerable fever. The edges of the wound were brought together by adhesive straps, and graduated compresses. A teaspoonful of mercurialized honey; barley water.

26. Cough severe, fever redoubled; great agitation; the bandage deranged by the coughing; nevertheless a pretty good night and some sleep; respiration embarrassed and accelerated; pulse frequent; skin hot, and rather moist. Some apprehension of inflammation of the lungs, or of a phlegmonous inflammation in the cellular tissue of the neck about the wound. Ipecacuan syrup, lavement with mercurial honey, bandage with diachylon, and compresses to keep the edges of the wound together; six leeches, same drink, &c.

27. Sensible improvement; leeches have done much good. Syrup not given; cough less frequent; respiration still rather accelerated, but less oppressed; moderate feverishness; considerable discharge of pus from the wound, but bandage not deranged; mucous rale diminished. The child becomes weak, pale, and asks for food. Same tisan and bandage; a little soup and bouillie.

28. Improvement continues; cough considerably less frequent; fever almost gone; respiration a little oppressed; voice natural; edges of the wound afforded a copious suppuration, though nearly united; no more discharge of mucus; good appetite; milk and barley-water, soup.

29. Fever gone; edges of the wound covered with granulations, and still allowing the escape of a little air; cough seldom; a little mucous rale; great appetite.

Up to the 4th of June nothing particular occurred. The child was then fully convalescent; the wound, almost healed, still furnished a little pus, but neither air nor mucus. The cough had nearly ceased; the voice was natural; the digestive functions unimpeded; and he was then only enfeebled by the pain and the loss of blood and restricted diet he had sustained.

CASE IV.

Fatal Closure of the Glottis by a Polypus.

It often happens, that the foreign body, of whatever kind it be, does not escape at the moment of the operation, although we provoke coughing, sneezing, vomiting, or other phenomena of strong expiration. In such cases we should keep the lips of the wound asunder by a silver canula, or a piece of silver or leaden wire. The application of a cloth covered with cerate is always indispensable; but we should avoid placing in the wound charpie, or any such light and moveable substance. For experience has proved, that in these cases these substances tend to penetrate into the trachea, and there give rise to dangerous accidents. About eighteen years since, I performed at the Hôtel Dieu an operation for a case analogous to that now described. The haricot could not be extracted the instant of the opening of the trachea, nor did it appear next day. It was only on the third day that the interne found it on the dressings; however, the cure was a quick one. The following case also illustrates this subject.

An old man was once admitted to the Hôtel Dieu for a urinary affection. He experienced, from time to time, fits of suffocation, which were attributed to spasm of the glottis. The perfect discharge of the respiratory functions in the intervals of the paroxysms, precluded the idea of pulmonary disease. No particular treatment was consequently adopted, and in the midst of one of these attacks the patient suddenly died. On the opening of the body, the glottis was found to be completely shut up by a prolongation formed of cellular and vascular tissue, and covered by the mucous membrane. This was a polypus which sprung from one of the ligaments that proceed from the lateral parts of the epiglottis to the arytenoid cartilages. It was more than eighteen lines long, and was forked at its free extremity. It seemed that this polypus generally occupied the inferior extremity of the cavity of the pharynx, and then produced no inconvenience; but whenever by a change of position it got over the opening of the glottis, it then produced a greater or lesser occlusion of this opening, which gave rise to the accidents described, and which induced the patient's sudden death. This curious case is of deep interest, and furnishes another proof of the utility of the researches which

should be made in similar cases. Paroxysms of suffocation occurring without any appreciable lesion of the lungs, should be examined into by inspection and by touch. It is indisputable, that we might have detected and removed this polypus during life. Here we have a lesson for the future; one which practitioners will not, we are sure, neglect.

CASE V.

Guttural Angina, successfully treated by Tracheotomy.

The operation of tracheotomy is employed, not only to favour the escape, or obtain the extraction, of foreign bodies, but it is also successfully practised in cases of occlusion of the glottis, by the production of a false membrane, or the swelling of its mucous lining. It is thus that it has been known to succeed in croup, and that very recently it has been followed by the most brilliant success in a case of œdematous angina, of which the details are as follow:—

On the 24th of October 1832, Madame B., æt. 34, governess, was conducted to the Hôtel Dieu in a state of suffocation, which every instant threatened her life. Five months before, this lady had been attacked with a guttural angina, and very intense bronchitis. She had long felt pain and heat along the anterior part of the neck, her voice had become hoarse, and for some days she had been quite dumb. Repose, a bleeding, leeches, and emollient soothing tisans, calmed the greater part of the distressing symptoms; and scarcely was this improvement effected, when she resumed her habitual occupations, went to sing at church with her pupils, and fatigued herself greatly. Her symptoms accordingly returned, less urgently, but more obstinate than before. She coughed frequently, experienced continual heat and pain of the larynx. The voice was altered, respiration difficult, sometimes hissing, and convulsive during the night. However, there were still alternations of improvement, until at length she was compelled to come to the Hôtel Dieu in the following condition:—The posterior wall of the pharynx was red, a little painful, somewhat swollen. The larynx, and all the surrounding parts, were the seat of a peculiar uneasiness. The respiration was difficult, inspiration hissing, the voice hoarse and weak. She complained of a very distressing pain behind the lowest piece of the sternum. During sleep, which was but of short duration, the respiration was more difficult, and the laryngo-tracheal hissing more decided. On the 25th, 26th, and 27th, the affection was treated by simple methods, such as the tisan of liquorice, poultices about the neck, and soothing gargles. The disease, however, continued to proceed. The laryngeal embarrassment became more considerable. Madame B. believed she had some foreign body in her throat, which hindered her from breathing; the coughing was now in long fits, the laryngeal hissing more intense, the voice very hoarse, weak, and interrupted. During the day, prostration and somnolency; restlessness and inquietude during the night. Her face expressed anxiety. The pulse was frequent and irregular in the paroxysms. At this period, M. Husson thought he detected a swelling of the mucous membrane of the larynx, and agreed with MM. Recamier and Broussais in regarding the case as one of œdematous angina.

The 29th, 30th, and 31st of October, twenty grains of ipecacuanha were given daily, seven grains every third hour. There were several evacuations upwards and downwards, the vomiting being accompanied by the serious symptoms of convulsions, determination of blood to the brain, frequent cough, and imminent suffocation. Palliative means were still employed; among others, leeches to the vulva, her catamenia being but scanty. On the 2nd of November the suffocation augmented, and she was bled copiously from the arm. Sinapisms were applied to the thighs, and a purgative injection was prescribed. On the 4th she was in the same state; thirty leeches were applied to the base and sides of the neck, with slight benefit towards evening. The night, nevertheless, was very bad. In the morning respiration extremely irregular and interrupted, and inspiration so difficult, that it produced a sound like the lowing of a cow. The patient was obliged to sit up erect; venesection and sinapisms to the thighs.

On the 5th, same state. I was now consulted, and the nature of the case ascertained to be as MM. Husson, Recamier, and Broussais, had declared. Another venesection was performed, and sinapisms applied to the legs and arms. On the 6th and 7th the repeated paroxysms of dyspnœa announced the approach of death, should no energetic proceeding be forthwith adopted. The operations of hæmatosis were already troubled, and the colour of the skin was leaden. During the access, she was either pale or red; her state of agony was indescribable, her terror and anxiety extreme. Another bleeding produced no improvement, and at three p.m. tracheotomy was deemed indispensable; the operation was accordingly practised in the ordinary manner,

with the exception that two small transverse cuts were made in the trachea, so as to give the opening in this tube a crucial form. Immediate relief was experienced. The pulse gradually became more regular, the paleness of the face and the somnolency diminished. She slept several hours during the night. At the morning visit, she answered "she was better." The air, which issued from the wound, had a metallic sound. Next morning, the 9th, it was perceived that the opening had a tendency to contract, and that it was partly obliterated by the desiccation of the mucus and pus on its edges. A gum-elastic canula, seven lines in diameter, was introduced; from time to time it was removed and cleaned, and as it was found to be displaced by the least coughing, another, of ivory, was substituted for it. This again was subsequently exchanged for another little instrument somewhat like a dissection forceps, and both branches of which, by staying apart, kept the edges of the wound asunder.

On the 16th, slight purgatives, some soup, and a little sulphate of soda, were given. On the 14th, a seton was introduced into the neck. The 16th, by shutting the wound for a moment, it was ascertained that the voice was less hoarse, the respiration easier, the hissing of inspiration less intense. On the 20th the opening was enlarged, and a fibro-cartilage divided. Calomel, in the dose of five grains daily, was given from this time till the discharge of the patient on the 5th of December, when, though not perfectly cured, her condition was very satisfactory, the wound being almost closed, and the laryngeal affection nearly disappeared. On the 20th of January, a letter was received from her, stating that the opening was perfectly healed up, that the cough was extremely rare, and that the hoarseness was wonderfully diminished. On the 31st of March 1833, she came to the Hôtel Dieu perfectly cured, and in blooming health. It is unnecessary to add further remarks on this most interesting case. Those only who have seen Madame B. in M. Husson's wards, can appreciate the immense service conferred on a patient whom so many practitioners had abandoned.

Operations usurp an importance in surgical education which they should not naturally have. They have come at last to represent, as it were, the whole science, and a surgeon, far from being valued according to his sense, abilities, and general knowledge, is esteemed excellent only in proportion as he operates with skill.—*John Bell.*

LECTURES

ON

MEDICAL PATHOLOGY,

DELIVERED IN THE UNIVERSITY OF PARIS,

By M. ANDRAL, D.M.P., &c. &c.

Lecture XX.

EPILEPSY CONTINUED.

Recurrence and Treatment of Epilepsy.

Epilepsy, with respect to its progress, may be divided into two groups, the irregular and the periodical; or it may be considered in two groups one of which is composed of those cases in which the paroxysms are of but rare occurrence, the second when they are very frequent. There are numerous examples of the access only occurring once a year, or once in several years; while, on the contrary, the cases are still more frequent of a paroxysm several times a month, a week, or every day, or even of several in one day. The disease may suspend itself for years, yet leave reason to fear its return. After twelve years, for instance, a relapse has been observed. The relapse, too, may either consist of a single paroxysm, or of several. It is a remarkable fact, that certain diseases seem to exert a happy influence on epilepsy, either suspending the paroxysms, or completely preventing their return. Intermittent fever, for example, measles, scarlatina, certain affections of the digestive tube, have been known to act thus beneficially. Certain physiological states, such as that of pregnancy, have been occasionally known to have the same effect. However, this is by no means constant, some females, on the contrary, having much more frequent paroxysms during this condition. The disease may terminate in a complete cure, but this event is not equally frequent in every age. In infancy it is most frequent, the chances diminishing as the patient attains to puberty. The disease is often naturally suspended at the age of eight, to recommence at puberty; so that intermissions of this kind afford no pledge of a certain cure. After puberty, a cure is much more rare; nevertheless, some cases of unexpected recovery, and even at an advanced period of life, have been recorded by writers on this subject. Tissot, for instance, mentions the case of a man who was epileptic up to 30, and at that age sustained some inexplicable revolution in his constitution, the effect of which was the complete cure of the epilepsy, which never returned. Epilepsy, in its progress, may

exercise no unfavourable influence on the general functions, but such cases are rare, the patients seldom arriving at old age. Sometimes they die in and by the access; sometimes by the combined influence of several.

The *treatment* varies according to the presence or absence of the access, and the degree of intensity and duration of the access itself. During the paroxysm, we have, generally speaking, but very little to do beyond preventing mechanical injuries by the patient's convulsions. The inspiration of spirituous and aromatic substances, to which many persons have recourse, is a very bad practice, may do a great deal of mischief, and never diminishes the violence of the attack. When, however, the paroxysm continues too long, and the coma becomes intense, we must act with decision. It then becomes important to evacuate the sanguineous system by leeches or bleeding, whether during or after the convulsions. When the access is over, if no accident be experienced, if no organic congestion exist, we have nothing to do but to leave the patient to rest and sleep. If, on the contrary, there be local congestion towards the head or chest, or if the respiration continue much embarrassed, bleeding and leeches are to be employed. The jugular vein may be opened, if the apoplectic symptoms be severe, and revulsive applications, such as sinapisms, may be applied to the base of the skull. With reference to the apoplectic symptoms of epilepsy, I may mention that I this morning saw a case at La Pitié which terminated fatally in this manner. The patient was a woman, who had, for twenty-four hours, a continual series of epileptic paroxysms, the coma persisting between each access. On opening the body, there was no trace of congestion, hyperæmia, inflammation, or ramollissement of the brain or its membranes. Everything was pale and free from unusual vascularity. But the effusion of serum was the greatest I ever saw. The ventricles were so dilated as to swell up the superior surface of the lateral lobes. There could not, in fact, have been less than from ten to twelve ounces of effused fluid. All this evidently took place during the attack, but as for the cause of that attack, the dissection gave us no information about it. In such cases as this, large blisters to the neck are obviously indicated.

Immediately before the access, if there be no prodromes, of course nothing can be done. Where premonitory signs, however, do exist, we must act according to their nature. When the preliminary pain, already described, is well marked, a ligature interposed between it and the centre of the circulatory or nervous system, or a tourniquet, or some other means of compression, or the application of a moxa or blister to the pained part, will frequently render the approaching paroxysm abortive. In the interval between the attacks, we must be guided in our measures principally by the indication which the occasional causes afford. By this study alone can we be decided on the suitable methods.

These occasional causes, as we have already seen, are very diversified. Our therapeutical plans must accordingly be exceedingly various in different cases. Venesection, leeches, purgatives, and cutaneous irritation, have thus the cases to which they are separately or collectively suitable. The modes of cutaneous irritation are manifold. Blisters, setons, especially in the neck, moxæ to the base of the skull, the cautery, whether actual or potential. This latter application has even been recommended to the head itself. Cases are on record, however, in which the application of fire to the skull has been attended with the most dreadful inflammation, erysipelas, caries of the bones, and death itself. The application of the cautery to a limb seems more promising. There is a case in the *Journal du Progrès* of an epileptic man, ætat. 30, in whom the disease was suspended by a burn of the thigh, from which an open ulcer resulted. We are not entitled, however, to regard this case as a perfect cure; the period passed between the burn and the publication of the case not being sufficiently great. A case has been published in the "American Journal of the Medical Sciences" for July 1826, of a man ætat. 46, who was epileptic from the age of fourteen. For some years he had also become quite stupid, and was evidently rapidly approaching his end. As a last resource, the operation of the trepan was performed, and a cure took place. During the operation, one of the instruments even injured the dura mater. Amputation of the finger has been practised, when the pain or aura originated there, and it is said with occasional success. The radial nerve, too, has been divided with doubtful result. More certain benefit seems to have been derived in some cases where a tumour was removed, which pressed on a subjacent nerve.

As for baths, they are of use or of injury according to their mode of employment. If very warm, they generally do mischief, except in the cases wherein it is urgent to recall a cutaneous eruption, and even here the head must be kept cold during their application. In some varieties of the disease, cold-baths

are of service. I know myself a patient who, after the access, can only sleep in a bath at the temperature of 26° Reaumur. As to ice-baths, surprise-baths, &c., I think we should only use them with the utmost reserve. Salt-water baths do not seem to have any superior utility over those of fresh water of the same temperature. In some cases travelling may be of great utility; for, generally speaking, giving a certain degree and character of employment to the imagination, does much to suspend or diminish the number of attacks. Attention should of course be always paid to the general functions, to the state of the digestive organs, the catamenia, the skin, &c.,—to the state of cutaneous eruptions,—to the diet of the patient, which should be always very moderate,—to the prevention of excesses of any description, &c.

With respect to the numerous specific remedies which have from time to time attracted notice, it is almost enough to say, that they have all failed. It is right, however, that you should have a notion of the state of medical science in this respect. I shall pass over the disgusting history of the administration of blood, bone-dust, fæces, urine, and meconium, to the unhappy victims of this malady, and glance at the remedies which have been employed on more rational speculations. The carbonic acid and the hydrocyanic acid, the first dissolved in water, were, from their physiological effects, proposed in the treatment of this malady, and it was supposed with success; but experience has not confirmed these pretensions. Ambergris and various antimonial preparations, the tartar emetic and oxide for example, have been tried with no better result. The nitrate of silver is, however, that one of the asserted specifics to which we should most particularly attend, since it rests upon a superior evidence to the others.

The nitrate of silver has been employed in several other nervous diseases, but most of all in epilepsy, in doses varying from the one-sixteenth of a grain, to the enormous quantity of twenty grains daily. Lombard, of Geneva, who has written an excellent paper on the subject, gave one-fourth of a grain, repeated eight times daily to twenty-four patients, eleven of whom were epileptic.

The action of the remedy is found to be threefold: 1st, on the digestive organs; 2nd, on the skin; 3rd, on the brain. Of these twenty-four patients five had transitory pains of the stomach from its use; five others had diarrhœa with pain in the bowels, but both transitory; one had constipation, and in all the others no effect on the digestive organs, no thirst, heat, or pain. The singular action which the nitrate of silver sometimes exerts on the skin was not witnessed in any of M. Lombard's cases, a circumstance which certainly did not depend either on the dose or the duration of the treatment, for smaller doses and a shorter time have been known to give rise to this discolouration. The only difference in M. Lombard's cases was, that the remedy was occasionally intermitted. The therapeutic effects in these cases were as follows: eleven were epileptic; the rest laboured under other nervous diseases. In the course of the treatment seven took more than a scruple, the rest more than a drachm. Of the eleven epileptic cases, one was completely cured, eighteen years having elapsed since the administration of the remedy without any relapse. In three cases there was no effect whatever. In the remaining seven the attacks seemed to be diminished in frequency. This, however, must be regarded as very inconclusive, for nothing can be more irregular than the period of recurrence in the epileptic fits. M. Lombard's memoir was published in the 3rd vol. No. 66 of the *Gazette Medicale*. Other memoirs on the same topic have also been published by other authors and in different periodicals. In most cases the skin was stained before the disease was alleviated; in great numbers no effect on the malady was at all produced. In short, there are as yet not a sufficient body of facts before us to prove that the nitrate of silver is of any special utility whatever.

The remaining remedies which have been proposed I may notice in alphabetical order. They are chiefly ammonia and asafœtida, in doses of from one to ten grains; camphor; castor, from five to twenty grains daily; copper, which Boerhaave regarded as the remedy *par excellence*, especially its ammoniacal solution; numerous objections, however, may be started against the facts on which he reasons. However, you will find some cases of the kind in the 16th vol. of the *Archives de Médecine*. Digitalis, see the *Revue Medicale*, vol. 3, p. 320. Electricity which seems to be recommended by some apparently successful cases, such as that published by Pearson, in an English journal,—a case in which two blisters were applied, one to the neck the other to the knee, and the opposite poles placed in contact with each surface; a cure was effected in from 12 to 24 hours. We must here, however, not lose sight of the probable effect of the patient's imagination, excited doubtless by the unusual remedy employed. Preparations of iron are the next; they have had their supporters too, but do not seem entitled to much confidence. Hyosciamus, the aqua lauri ceraci, and mercury, are much praised. Musc, as apparently possessing the power

of modifying the functions of the nervous system, has been used, and it is said with benefit, in the dose of from three to ten grains daily. Its virtue was particularly vaunted by Tissot. See the *Archives*, vol. 19. In the *Ephémérides de Montpelier*, t. 3, are some cases successfully treated by the meadow narcissus. Opium is of use also in cases where obvious indications exist for its administration. Orange flowers in infusion, or powder to the amount of half an ounce daily. The acetate of lead from one-half to six grains. The prussiate of iron, see *Revue Médicale*, t. 3, 1827. Quinine in the distinctly periodical cases; rhue succinate of ammonia; the sedum acre; stramonium (see *Bulletin Thérapeutique*, t. 1); strychnine, (*Revue Médicale*, 1827); turpentine, which M. Foville, a sceptic about all remedies in this disease, found to succeed in one case; zinc in oxide, and chloruret valerian, in which Tissot reposed much confidence,—all these have been tried, and generally with disappointment. Respecting the last remedy mentioned, M. Chauffard of Avignon relates a case in which the disease seemed to be excited by masturbation. The valerian was given in doses of from two to four drachms daily, and the epilepsy ceased while the remedy was used. It should not be lost sight of, however, that the habit of masturbation was desisted from at the same time.

The principal memoirs you can consult with advantage respecting this disease, besides the works to which I have already referred, are the work by M. Bertin, the article by M. Esquirol in the *Dictionnaire des Sciences Médicales* the Thesis of M. Calmeil, an article by M. Bouchet in the *Archives Générales*, 1828, and the Thesis of M. Braset, Paris, 1827.

REMARKABLE CASE

OF

PATHOLOGICAL PHYSIOLOGY

IN THE HUMAN SUBJECT.

By H. MONTAULT, *D.M.P., &c., Surgeon to the Sixth Dispensary of the "Société Philanthropique*[*]*."*

Analysis of Pathological Characters.—Hydatid cyst, developed externally to the bony substance, and within the cavity formed by the base of the skull, penetrating into the foramen lacerum posterius, and anterior condyloid foramen of the left side, compressing (successively) the *hypoglossal*, *glosso-pharyngeal*, *spinal*, and *pneumo-gastric* nerves, the cerebellum, the meso-cephalon, and the upper part of the spinal chord of the corresponding side. Excessive accumulation of fluid in the ventricles of the brain.

Analysis of Concomitant Phenomena.—Paralysis and atrophy of the muscles of the left side of the tongue; preservation of *taste* on this side (the lingual nerve being intact); paralysis of the tongue in the articulation of sounds; pain in the corresponding side of the neck: paralysis of the organs of deglutition and of voice; epileptiform paroxysms; atrophy of the muscles of the velum palati and left cordæ vocales; general lesion of sensibility; falling of food into the air-passages; death.

It has been repeatedly said, that "medicine is but the physiology of man in a state of disease." Never was a theory better supported than by the following facts, which I proceed to expose in their minutest details, before proceeding to derive from them the deductions and numerous applications they afford in the study of normal physiology. So many accidents, difficulties, and complications, prevent our illustrating this study by experiments on living animals, that I regard the subsequent case as a fortunate event for those engaged in experimental physiology. Before proceeding any further, I am bound to express my gratitude to MM. Dupuytren, Gendrin, and Rostan, who have permitted me to avail myself freely of the facts in question.

A man named Girard, æt. 33, a weaver, having worked a long time in a low and damp situation, and been, consequently, exposed to rheumatic affections, about three years since experienced extreme pain at the posterior and lateral part of the left side of the head. Having lasted fifteen days, the pain then extended to the corresponding side of the neck, causing sleeplessness, and embarrassing the movements of the head, accompanied by trembling and shooting of the muscles of this region. According to the patient's statement, these pains followed closely on an accident, he having struck the back part of his neck on falling down a long flight of stairs. To the pain soon succeeded a difficulty of enunciation, but there was no symptom of paralysis of the left side of the face. The application of leeches, &c., procured some abatement of

[*] Vide *Journal Hebdomadaire*, March 31, 1833, and *Lancet*, No. 501, page 62.

the pain, which disappeared even at the end of a year, but soon returned (less severely), and thus continued until September 1831, when it became much more intense at the upper and back part of the neck, so as completely to preclude any movement of the head. In October of the same year, he was admitted into the Salle Saint Marthe, under the charge of M. Dupuytren, who at that time made the following remarks on his condition:—The movements of flexion, whether lateral or antero-posterior, are partly executed by the entire of the vertebral column. The tongue is diminished in volume, and atrophied at its left side alone; more so at the point and middle than at its base. This circumstance the patient noticed from the commencement of his illness. The right side of the tongue seemed larger and stronger than usual. The left side was reduced almost to the thickness of its mucous envelope. The articulation of sounds, difficult at first, was now clear and distinct—a circumstance apparently more the result of exercise in speaking, than of a diminution of the disease. By successive applications of four different substances—sugar, sulphate of quinine, muriate of soda, and acids dissolved in a small quantity of water, any changes which might supervene in the sense of taste were carefully noted. The results of these experiments, previously performed on healthy persons, left no doubt that tastes were perceived by the left side of the tongue.

Proceeding by the mode of exclusion, it was easy to conclude, that of the three nerves distributed to the tongue, the hypoglossal, glosso-pharyngeal, and lingual, that of the ninth pair, the hypoglossal should necessarily be altered. The absence of general paralysis, contractions, convulsions, or deranged intelligence, moreover, led M. Dupuytren to admit a lesion of this nerve at its exit from the skull, and not at its origin. As to the nature and species of this lesion, M. Dupuytren suspected that a chronic and rheumatic engorgement of the ligaments uniting the first vertebra and the occiput, might have compressed, or altered, the tissue of the hypoglossal nerve, which escapes by the anterior condyloid foramen. He thought, also, that below the point of its exit the nerve was only atrophied, whence the corresponding paralysis and atrophy of the left side of the tongue.

In a month after this the man left the hospital, but returned again in a few days; again, however, he went home, and a third time returned to the Hôtel Dieu (in December 1831), when he was received into M. Gendrin's wards* in a state much worse than before. On February 14th, 1832, he was somewhat better; no pain in the face, but much in the neck, especially behind the ears, on a level with the posterior and lower part of the mastoid apophyses, and occasionally seeming to follow the nervous filaments of this part. The patient now stated that all his senses were perfect, but that the venereal appetite had sensibly declined for the past three months. On the 10th of February, the experiments of M. Dupuytren on the tongue were repeated, and with the same results. The patient now complained that he occasionally experienced peculiar sensations of trembling, of sharp blows on the skin at both sides, on the shoulders, abdomen, and cheeks. On the 24th of March he again left the Hôtel Dieu, and returned to M. Rostan's wards on the 28th of the following September. Attentive examination was now made as to his condition, which we proceed to describe:—

Pain towards the occipital opening, extending to the 3rd or 4th cervical vertebra, but permanently fixed on a level with the articulation of the atlas and axis, without swelling or alteration in the texture or colour of those parts. Behind the mastoid apophysis of the same side there is a small tumour of the size of a franc, elevated about two lines above the surface, almost circular, hard, slightly painful on moderate compression, not surrounded by a bony prominence—as we observe in cases of fungi of the dura mater, which have perforated the cranium. Very strong compression causes intense pain, which extends to the origin of the rachidian canal. The sonorousness and clearness of the voice are altered, but the pronunciation is not difficult. No cough or expectoration. The intellect intact, but the patient considers his memory gradually to have declined for the last month. Deglutition imperfect; fluids always penetrate the larynx in small quantities, but solids are swallowed without difficulty. Digestion good; slight constipation; urinary secretion normal. Some torpor of the left arm, but none in the corresponding lower extremity. The patient can, nevertheless, move the arm with perfect precision. No fever. M. Rostan now expressed his belief that the disease was a fungous tumour of the dura mater at the base of the brain.

From the 8th October the patient experienced hiccups; disgust for food; vomiting without any other symptom or

* We omit all details of treatment, &c., with which M. Montault has needlessly encumbered this valuable case, as they are destitute of the slightest interest.—Ed. L.

gastritis; obstinate constipation. The hiccup returned on the least movement, and was in vain treated by the acetate of morphine. Fever also every evening. The disease now progressed rapidly, and, affected by sinister ideas, he left the hospital on the 6th November. On the 20th December he was received again under M. Gendrin's charge in the Hôpital Cochin. The following additional symptoms were then noted. Almost complete uphonia; diminished sensibility of the entire of the left side; scanty secretion of urine; general emaciation; skin dry; memory enfeebled. He is fatigued when questioned; appetite impaired; fever; and want of sleep.

25th December. Voice weaker than ever; the lungs of the left side have become the seat of prickings and lancinations. Intense suborbitar pain; great thirst; tongue slightly red; deglutition of liquids more difficult; *involuntary* and *unconscious* discharge of urine and fæces; total loss of memory; pulse very frequent; skin hot. A confluent and aphthous eruption appeared in a few days after this, which was removed by detersive gargles. From the 1st to the 8th January 1833, there were cough and abundant expectoration, and considerable embarrassment of deglutition, but on the 8th January, this symptom suddenly increased to such a pitch, that the patient was threatened with suffocation every moment; the intellect was still intact. On the 12th January, after swallowing a few spoonfuls of bouillie, he fell back on his pillow and died. For several days before his death, some epileptiform paroxysms had been noticed, and deglutition became so difficult, that he spent entire hours in sucking up a spoonful of bouillie.

Examination of the Body twenty-four hours after Death.

External Appearance.—No cadaveric rigidity; considerable emaciation.

*Head.**—The pulp of the brain rather firmer than usual, and the ventricles dilated by a great quantity of serum. In lifting out the cerebellum, a cyst was perceived (having whitish, opaque, slightly-resisting sides, about half a line thick), in volume equal to a goose's egg, presenting manifest fluctuation. Being casually opened, there escaped a quantity of limpid serum, and a multitude of hydatids, perfectly sound, smooth, and transparent, varying in size from that of a grain of millet seed to a chestnut.

This cyst was placed between the left occipital fossa, the corresponding side of the basilary surface, the left hemisphere of the cerebellum, which it lifted up, and the rachidean bulb, which it pushed slightly to the right side. It adhered to none of these parts, which preserved the brightness of their arachnoid covering, even where in contact with the tumour, so that this seemed as if free in the cavity of that membrane. It penetrated to the depth of some lines into the rachidian canal, and on a level with this point, there proceeded from it a sort of appendix, shaped like the finger of a glove, penetrating the anterior condyloid foramen, and containing a hydatid. From the base of the cyst again proceeded another, still more remarkable, appendage, which engaged itself in the anterior portion of the left posterior foramen lacerum, and, turning from before backwards, after traversing this opening, as it passed behind the bundle of muscles known by the name of the "*Bouquet anatomique de Riolan*," dilated into a bulbous form, as far as the superior extremity of the complexus and sterno-mastoid muscles. This second cyst, or prolongation of the first, had white, opaque, and soft sides. It was, the size of a large nut, covered externally by a fibro-cellular fold, by the digastric muscle, the mastoid apophysis, and the superior extremities of the plexus and sterno-mastoid muscles. This, in fact, was the cyst, the presence of which had been ascertained during life, during the patient's treatment by M. Rostan at the Hôtel Dieu. It contained numerous hydatids, and communicated with the intra-cranial cyst already described. The narrow structure by which they communicated corresponded with the posterior foramen lacerum.

It became of great importance to examine the nerves proceeding from the base of the cranium. The *lingual* nerves were perfectly *sound*. The glosso-pharyngeal and pneumogastric nerves of the left side differed in no respect from those of the right side, from their origin to their passage into the foramen lacerum posterius, but immediately after their issue from this opening, their condition differed individually. The hypoglossal nerve, or the 9th, also was unaffected from its origin to its exit from the foramen lacerum anterius, but from that point it was in a state of atrophy, reduced to the dimensions of a thread, two-thirds at least less in size than the nerve of the right side. This atrophy continued all along to the minutest ramifications among the muscles of the tongue. It appeared to be the result of the compression exercised by the little appendix sent off from the intra-cranial cyst through the anterior condyloid foramen. The

* We omit from M. Montault's tedious and unnecessary details, everything which presented no morbid deviation.—Ed. L.

glosso-pharyngeal, spinal, and pneumogastric nerves had also been compressed by the same cyst in the foramen lacerum posterius; however, the glosso-pharyngeal was the only one of these nerves which was smaller (by one-third) than those of the opposite side.

The bones in contact with, or pressed upon by, the cysts here described, were absorbed to a considerable extent, as is seen in cases of aneurism pressing on bony parts.

Organs of Deglutition.—At the left side, the muscles, whether intrinsic or external to the tongue, were totally thinned, pale, atrophied; their fibres few, yellowish, and soft, having the aspect of a spongy tissue, devoid of the traces of their primitive organization. Pharynx nothing remarkable; œsophagus strongly contracted, but not altered in structure.

Organs of Voice.—Considerable quantities of bouillie in the larynx; considerable paleness of the larynx; *atrophy* of the left *corda vocalis*; trachea bright red, and its mucous lining swollen.

Thoracic viscera, heart, stomach, intestines, and bladder, quite normal. The hepatic veins much distended, and below the middle lobe there was a smooth white tumour, containing hydatids of variable volume. The vertebræ, spinal column, and its membranes, perfectly healthy.

Reflections.

It seems to me, that the best manner of illustrating the interest of this case, is by placing exactly in juxta-position with each other, the *symptoms* presented by the patient, and the *alterations* found after his death. The principal phenomena, then, which the malady of Gerard presented, were the following, in the order of their appearance:—

1. Pain at the posterior and lateral part of the left side of the head and neck. May we not refer this pain to the development of the external hydatid pouch, which must have compressed, from within outwards, the extremities of the complexus and sterno-mastoid muscles, and to the compression, by the internal cyst, of the spinal nerve in the posterior foramen lacerum?

2. Extreme difficulty of pronunciation, depending on a loss of power of movement in some of the muscles of the tongue. But what nerve was here concerned? The glosso-pharyngeal, which was compressed and diminished in volume. Charles Bell, as is known, has classed this among the respiratory nerves, giving us thereby to understand, that it contributes to movements in relation with the *external phenomena of expression* of the individual. M. Manec, in his plates of the origins of the nerves, has confirmed, in this respect, the researches of Charles Bell, by stating that this nerve concurs in the movements of the tongue in the *pronunciation* or *articulation* of sounds, while the movements in *mastication* are influenced by the great hypo-glossal.

3. Paralysis and atrophy of the left side of the tongue, without loss of taste. The atrophy of the hypo-glossal nerve, and the perfect state of the lingual nerve of the same side, will explain this two-fold circumstance. This fact, then, would prove also, that the trifacial by the lingual branch, presides over the faculty of perceiving or *tasting* flavours. Despite the great number of experiments undertaken to discover to which of the three nerves that distribute themselves to the tongue we are to attribute this property, definitive experiments have until lately been wanting; but at present they abound, so as to place beyond doubt that this property belongs to the lingual branch. The following facts prove this statement. The lingual branch of the 5th pair distributes itself to the papillæ of the tongue. In the lower animals, in which only one organ of sense, and that the taste, is to be detected, the tongue is supplied by the branch in question. According to Casserius, Scarpa, Jacobson, Dumeral, Treviranus, Weber. Magendie, Serres, and De Blainville, the lingual branch may assist, replace, or act for the gustatory nerve. According to Galien, Willis, Vieusseus, Rasseuer, Gall, and Belingeri, taste has also been referred to the same branch; and, lastly, in modern times, several experiments and cures have corroborated this opinion. By means of galvanism, indeed, MM. Dupuytren and Richerand have demonstrated the lingual to be the nerve of taste. The delicate experiments of M. Magendie, who paralysed the sense of taste by cutting the 5th pair in animals, and the beautiful case related by M. Serres, in which taste was lost during an alteration of the trifacial, (a case by-the-by to which ours forms the counterproof,) concur in the same indications. This atrophy and paralysis of one side of the tongue, with *preservation of taste*, is, moreover, of high importance, since it confirms the law announced by M. Serres, and supported by Geoffroy St.-Hilaire, that every organ of the special senses receives two principal nerves, one which keeps up *the harmony* and *conservation of the constituent parts of the organ*, another which contributes directly to sensation, as *the conductor of the impression to the brain*.

4. Lesion of general sensibility, first in the left side, and then in both sides. I believe this to have depended on the compression by the internal cyst, either of the

superior part of the medulla oblongata backwards, or rather of the meso-cephalon, which the examination showed to have been much displaced.

5. Paralysis of the organs of deglutition. Explained by the compression and diminished volume of the glosso-pharyngeal nerve.

6. Loss of memory and weakened venereal appetite. These facts are interesting to those who regard the cerebellum as the seat of one or other of the two faculties, a part of it having been compressed by the cyst.

7. Torpidity and commencing paralysis of the left arm; obstinate constipation. This appears to me to be the result of compression on the upper part of the medulla, or medulla oblongata. It is remarkable, too, that all the functional troubles resulting from the compression, whether of the nerves or nervous masses, showed themselves always at the same side as the lesion of the nervous system described in the preceding columns; a fact which accords with our previous physiological knowledge, since the lesion occurred in a part of the nervous system placed below the origin of the nerves. This remark does not apply to the alterations of the general sensibility produced by the compression of the annular protuberance.*

8. Hiccup, aphonia, fall of food into the air-passages; death. All these events appear to me, as well as the atrophy of the thyro-arythenoid muscle, and of the left side of the velum palati, to have been produced by the same lesion, namely, the compression of the pneumo-gastric nerve in the foramen lacerum posterius,—death being immediately caused by the asphyxia produced by the food which fell into the trachea and bronchial tubes. I think so, because similar accidents follow the section of this nerve at a certain height, or even the section of some of its branches, such as the superior laryngeal and recurrent. It was thus that Galien observed the voice to be lost by the division of the recurrent; that Legallois, Desmoulins, and Dumas, have proved that asphyxia then takes place by occlusion of the glottis; that M. Cruveilhier has ascertained the extinction of the voice to have resulted from compression of the recurrent nerves by an aneurism of the aorta. Additional facts of this kind may be found in the writings of Galien, Picolhomini, Lower, Boyce, Willis, Valsalva, Haller, Dupuytren, Blainville, Brodie, Legallois, Dupuy, D'Alfort, Magendie, Wilson Phillip, Dumas, Leuret, and Lassaigne, Breschet, Milne, Edwards, and Vavasseur, Abel and Hastings, Laboumes, Broughton, Bichat, Desmoulins, Tiedemann, Gmelin, and Sedillot.

[M. Montault concludes his case by citing some others by no means so interesting or so well calculated to elucidate the functions of the nervous system.]

* M. Montault here enters upon some ingenious speculations relative to the cause of the epileptiform accessions. They are, however, too purely theoretical, to be coupled with the preceding facts and deductions. Moreover, M. Gendrin believes the paroxysms to have been rather lethargic than epileptic.—Ed. L.

LITHOTRITY.

CASE OF STONE IN THE BLADDER, FROM INJURY TO THE LOINS.—MENINGITIS.

By W. B. Costello, *Esq., Surgeon.*

Some years ago the subject of this observation, J. Collinson, Esq., of Brantfell, Bowness, (Westmoreland,) had a fall from his horse. Up to that period he had always enjoyed excellent health. When a young man he used to indulge in all the manly sports of his native county, and even at the time of the accident, though he had passed his fiftieth year, he was still remarkable for the activity of his habits. He was thrown with violence on his loins, and although every attention was paid that skill could suggest under the circumstances, the lumbar region continued to be the seat of an aching pain, which made him very uncomfortable. His urine was bloody for a little time after the accident. About two years later he consulted a surgeon, on account of some irregularity in the excretion of his urine; his medical adviser combated the notion of his having a stone, but Mr. Collinson was satisfied that he had, relying for the correctness of his opinion on what he suffered when riding or exerting himself, and on his sensations of a foreign body against the neck of the bladder. His general health, however, had remained unaltered.

I operated on him at Ambleside on the 28th June, 1830, in the presence of Messrs. Carr and Fell, surgeons of that place. The urethra was small, the bladder healthy; the stone was easily felt and seized; it was flat, and measured three-fourths of an inch in the diameter through which the drill passed. The sitting lasted three minutes, and some powder and fragments were soon after voided; among the latter was one which proved the flatness of the stone.

He walked about the town after this operation, and did not seem to suffer in any way. A few days later, when I was about to resume the sittings, I observed that he appeared wild and fatigued, though he complained of no pain whatever in the

bladder. On inquiry, I learned that he had had no sleep since the first sitting, and that habitually he could never sleep in any bed but his own. Instead of operating, I sent him home to his own bed, requesting that he would let me know in a day or two how he went on; he sent word that he had had no sleep since his return home. Thinking, therefore, that there was something wrong, I went to him immediately. He had no suffering whatever in the bladder or urethra; his urine, which had carried down some more fragments, was natural, and was voided without pain. He could get no sleep; he felt a tightness over his forehead, as though it were pressed with a hand. His room was darkened, and no light was kept at night; still he complained that his eyes were of a glowing brightness, and that he could not shut out objects which seemed to pass before him; the air around, though he was in utter darkness, appeared to him to be of a flame colour. Blood was abstracted from the arm and temporal artery, largely; the relief was but transitory. The intensity of all the symptoms redoubled, the headach was more severe, the eyes became injected, and intolerant of light, and the pupils pencilled; the pulse was hard and frequent; his answers were short, and uttered with a hurried, though tremulous voice; the nausea was constant, and there were delirium and spectral illusions in the night. These symptoms yielded to copious bloodletting and narcotics; mercury was also exhibited, so as rapidly to affect the mouth. After his recovery from this illness, the stomach remained for some time much disordered. Another sitting took place, which was also productive of good results. I was now obliged to return to town, and the operation was in consequence suspended for several months upon my next journey to the country it was resumed. The further progress of this case to cure, presented nothing remarkable.

I have already observed that the urethra in this case was small; nevertheless some of the fragments voided were of considerable size. This gives me occasion to introduce a remark which I have had frequent cause to make—namely, that the urethra will be impassable to a body coming from without, while it will afford a free passage from within, to one of the same, or even of larger, size. This appears to me to be easily explained. A foreign body in the course of ejection from the bladder, is assisted by the *vis à tergo* of the stream of urine upon which its expulsion mainly depends, and the perineal muscles are relaxed to permit the flow of the urine. On the other hand, when a body is introduced from without, the consent of the perineal muscles is not obtained beforehand; they are not relaxed; on the contrary, under the influence of various causes, they will resist its introduction with all their might.

In the obscurity that prevails respecting the causes determining the production of calculous concretions, cases which have a tendency to define precisely any one of those causes in particular, deserve consideration. Mr. Earle published a paper in the *Medico-Chirurgical Transactions*, in which he attributes, in several cases, the formation of stone to a subacute inflammatory state of the kidneys induced by injuries to the lumbar region. The case of Mr. Collinson gives additional confirmation to this view.

There were two calculi in the bladder, each about the size of a blackbird's egg, hard and flattish.

The gentlemen present at the sittings were, Dr. Harrison of Kendal, Mr. Harrison, Messrs. Carr and Fell, Mr. Wilson of Bowness, &c.

April 9th, 1833.

CHLORINE AS AN ANTIDOTE TO PRUSSIC ACID.

To the Editor of THE LANCET.

SIR,—In the newspaper account of the late lamentable case of poisoning by prussic acid, no mention is made of the nature of the remedial means employed by Mr. Clapham. May I take the liberty of inquiring whether chlorine was administered in the manner recommended* by Mr. W. H. Potter. In the year 1830, I succeeded in completely recovering a valuable cat, which was, on my seeing it, apparently *in articulo mortis*, from prussic acid. Recollecting Mr. Potter's remarks upon the use of chlorine as an antidote to the deleterious effects of the poison in question, I immediately sent for some; and in the interval dipped the cat repeatedly into a pail of cold water. This, however, seemed to produce no effect whatever. Upon the arrival of the chlorine, I administered a small quantity, diluted with water, internally; and held the bottle, which contained the remainder, under her nose. In the course of about an hour, the cat, which in the first instance could not stand alone, was able to walk several paces without falling. I then administered a *tolerably strong dose* of sal. volatile, and repeated the shocks of cold water. Under

* Vide LANCET for 1830-31, vol. I, page 59.

this plan of treatment the animal gradually recovered; and next day I saw her comfortably seated before the fire in perfect health. Whatever credit may be due to the cold water for *perfecting* the cure, it is entitled to none whatever for *commencing* it.—I am, Sir, your obliged servant,

G. E. EACHUS.

Tiverton,† Devon, April 8th.

EFFECTS OF SALINE VENOUS INJECTION IN CHOLERA.

To the Editor of THE LANCET.

SIR,—In the 499th No. of THE LANCET (March 23d), there is a communication from Dr. Howison, in which he asks the following question:—"Have medical men, in their laudable and praiseworthy attempts to alleviate or cure spasmodic epidemic cholera (I allude in particular to venous injection), benefited the individual to any extent whatever? On the contrary, have they not tortured the latter hours of departing life?"

I was rather surprised on reading this, as there have been amply sufficient papers, expressing at *least* the harmless nature of venous injection, in this journal; and it was knowing that which prevented me mentioning *particularly* the symptoms it produced, in a letter (published in THE LANCET, No. 476) which contains my views of venous injection as a *remedial* agent in cholera. Those observations and my own were so similar, that I thought it would be needless repetition to insert them there. I doubt whether there is any one who has had much personal experience in it who would apprehend serious danger from its application, when judiciously prescribed and well performed.

I have found the usual symptoms produced by venous injection, to be as follows:—The patient during the operation becomes gradually warmer, perspiring freely; the circulation restored to its proper equilibrium; the oppression felt at the epigastrium and thorax is dispersed; the craving thirst subsides; he expresses himself as being much better, if not quite well, so much so that I have many times conversed with patients during the operation, and have heard them relate in their normal voice, with much jocularity, amusing anecdotes, concerning their former lives, although ten minutes previous they seemed in the arms of death. The eyes and countenance resume nearly their natural expression and hue; cramps and restlessness so constantly complained of are relieved; sinapisms that have been applied for many hours, without producing pain or redness, perform their office as on a healthy subject, and for a short time every bad symptom is thrown off, when drowsiness occasionally supervenes.

After this state of things has lasted for half an hour, more or less, if the remedy fail, the patient again gradually sinks, and copious watery evacuations generally follow, both from the stomach and bowels. So rapidly does this take place, that in some instances it is produced before the operation is finished, and that, too, when the patient has been prevented taking fluid for some time previous to the operation, thus showing the rapidity with which the saline solution passes through the system into those viscera.

Such cases rarely recover, but their lives have been prolonged, and they, to all outward appearance, die far more comfortably (if the expression be allowable) than they would have done had venous injection not been used. Rigors come on occasionally, and a sense of chilliness, though the body is of moderate heat, so that the contrast is perfect when compared with the former state of the patient, for he then complains of heat, although in reality he is of deadly coldness.

The same train of symptoms (but not so perfectly defined) recurs, after a repetition of venous injection on the same individual.

I fear Dr. Howison's ideas (contained in the last as well as his former interesting letter) of the valueless nature of the *generality* of the many vaunted remedies, is too well founded; but I must contend for venous injection (when cautiously used) being at least an innocent prophylactic, even if not eventually a successful one.

I am your obedient servant,

W. C. ANDERSON, M.R.C.S.L., &c.

York, April 8th, 1833.

† Misprinted "Finsbury," a few Numbers since.

RESULTS OF THE TREATMENT OF CHOLERA.

To the Editor of THE LANCET.

SIR,—Will you have the kindness to insert the following in your valuable publication. My remarks would form a reply to Dr. Howison's fifth question, inserted in a late Number. Dr. Howison's attempts to promote discussion on questions connected with cholera, are, no doubt, laudable and praiseworthy, but far different

are the conclusions which I trust the majority of our profession have arrived at, "that they have tortured the latter hours of departing life." How can such latter-hour attempts border on what is laudable and praiseworthy? Further, medical men may differ much respecting the benefit attained during the late epidemic cholera, but many will be ready to aver that great benefits have been obtained: they have often felt the still pulse again to pulsate, and the cold feel of death on the skin turn to warmth and perspiration. The attempts of medical men have indeed been laudable and praiseworthy, and I as verily believe that they never torture the latter hours of departing life. Respecting Dr. Howison's allusion to venous injection—if cholera in Edinburgh has been anything like the cholera which so often temporarily, as well as lastingly, stops the pulses of the native Indians in the East, amongst whom I have been the witness of several hundred cases, I do not think that venous injection would be of any use. If there be no pulse, venous injection cannot produce one: if it beat so soft and small that a medical man would almost doubt its pulsation, venous injection would neither increase nor strengthen it: venous injection would not affect the heart when the circulation is either stopped or almost stopped. In such a state, venous injection, I think, cannot be a general stimulus; the gone powers of the system must be first restored by internal and external stimuli, and I esteem the carbonate of ammonia in solution in frequent doses one of the most certain. These remarks are purposely made brief; and not in a spirit of opposition to Dr. Howison's allusion to venous injection, for Dr. Howison's judgment on it does not appear. I rather infer that he is averse to its use. The other parts of the question have been answered, and I do think that on second thoughts, Dr. Howison would wish the latter lines of his question blotted out from your pages.—I remain, Sir, your constant reader,

THOMAS GRIGG,
(Surgeon) Madras Army.

Plymouth, March, 1833.

P. S. Has sulphate of quinine been used? I never tried it in cholera; but had I a few cases to treat, I would do so, under our present indefinite knowledge of the successful treatment of the disease.

*** Many other letters in reply to Dr. Howison have reached us, but we can find room only for two, and therefore select from among those that are authenticated by names. Our intelligent correspondent, "T. M. C." (Birmingham), will find Dr. H.'s paper at page 203, last vol.—ED. L.

NOTE FROM DR. WRIGHT.—CAUSE OF CHOLERA.

To the Editor of THE LANCET.

SIR,—The purport of my letter to you from Leeds, on the 27th of February, which I am sorry to find has not reached your office, was as follows:—After I read Dr. O'Shaughnessy's observations in THE LANCET of the previous Saturday (23rd), I attentively *re*perused those parts of his valuable report to which he refers. Except in an ambiguous use of the word "cause," in the first line of page 628, I think I have not misrepresented Dr. O'Shaughnessy's opinions, even although they do not *exactly* accord with those of other professional men in the general classification my sentence assumes. Taking for granted that the primary "cause" of cholera is "unknown," it results that all we do know must be effects. These effects, however, in their turn, become causes of certain symptoms, and hence arises frequent ambiguity of terms in treating of the origin of disease. The real difference between Dr. O'Shaughnessy's opinions, and the view advocated in my essay, seems to be, that setting out from an "unknown cause," Dr. O'Shaughnessy lays hold of a change in the constitution of the blood as the first *tangible* characteristic of the disease. To it he ascribes its principal phenomena, and on it are based his chief indications of treatment (*vide* Report); whereas it was my object to trace the main symptoms of cholera to a source anterior to a change in the constitution of the blood, and endeavour to grapple with the pest, a step nearer what—with such professional investigation as Dr. O'Shaughnessy has carried into a search for it—will, I trust, ere long, be made manifest as its fountain head.

I am, Sir,
Your most obedient,
T. G. WRIGHT, M.D., &c.

Wakefield, April 15, 1833.

P.S. Allow me to remark, that there is an omission of a short interrogative sentence in my paper as printed in THE LANCET (Feb. 9):—In page 629, col. 1, line 24, insert—"What does experience say to this?" The date also ought to be 1832 (not 1833), for the paper was written eight or ten months since, and at the time it was printed I had left Stockton.

ON THE

STRUCTURE OF THE HUMAN PLACENTA,

AND ITS CONNEXION WITH THE UTERUS.

By ROBERT LEE, *M.D., F.R.S., Physician to the British Lying in Hospital.*

(Read before the Royal Society, Nov. 17, 1831.)

[*From the Philosophical Transactions.*]

In the year 1780 Mr. John Hunter presented a paper to the Royal Society, in which he laid claim to the discovery of the true structure of the placenta and its communication with the vessels of the uterus. The following is the history of the appearances which he observed in the dissection of a woman who had died undelivered near the full term of utero-gestation, and from which appearances his conclusions were drawn respecting the natural structure of these parts. The veins and arteries of the uterus having been injected, an incision was made through the parietes, at the anterior part where the placenta adhered to the internal surface. Between the uterus and placenta lay an irregular mass of injected matter, and from this mass regular pieces of the wax passed obliquely between it and the uterus, which broke off, leaving part attached to that mass; and on attentively examining the portions towards the uterus, they plainly appeared to be a continuation of the veins passing from it to this substance, which proved to be the placenta. Other vessels, about the size of a crow-quill, were seen passing in the same manner, although not so obliquely. These also broke on separating the placenta and uterus, leaving a small portion on the surface of the placenta; and on examination they were discovered to be continuations of the arteries of the uterus. The veins were next traced into the substance of what appeared placenta; but these soon lost the regularity of vessels, by terminating at once upon the surface of the placenta, in a very fine spongy substance, the interstices of which were filled with yellow injected matter. He then examined the arteries; and tracing them in the same manner towards the placenta, found that, having made a twisted or close spinal turn upon themselves, they were lost on its surface.

On cutting into the placenta, he discovered in many places of its substance yellow injection, and in others red, and in many others these two colours mixed. The substance of the placenta, now filled with injection, had nothing of the vascular appearance, nor that of extravasation, but had a regularity in its form which showed it to be naturally of a cellular structure, fitted to be a reservoir for blood.

From these appearances Mr. Hunter infers, "that the arteries which are not immediately employed in conveying nourishment to the uterus, go on towards the placenta, and proceeding obliquely between it and the uterus, pass through the decidua without ramifying. Just before entering the placenta, after making two or three close spiral turns upon themselves, they open at once into its spongy substance, without any diminution of size, and without passing behind the surface, as above described.

"The veins of the uterus appropriated to bring back the blood from the placenta, commence from this spongy substance by such wide beginnings as are more than equal to the size of the veins themselves. These veins pass obliquely through the decidua to the uterus, enter its substance obliquely, and immediately communicate with the proper veins of the uterus. This structure of parts points at once to the nature of the blood's motion in the placenta. The blood detached from the common circulation of the mother, moves through the placenta of the fœtus, and is then returned back into the course of the circulation of the mother, to pass on to the heart*."

Dr. William Hunter's description of the vascular connexion between the uterus and placenta, coincides with that of his brother; "For it seems incontestable (he observes) that the human placenta, like that of the quadruped, is composed of two distinct parts, though blended together; viz, an umbilical, which may be considered as a part of the fœtus, and a uterine, which belongs to the mother; that each of these parts has its peculiar system of arteries and veins, and its peculiar circulation, receiving blood by its arteries and returning it by its veins; that the circulation through these two parts of the placenta differs in the following manner:—in the umbilical portion, the arteries terminate in the veins by a continuity of canal, whereas in the uterine portion there are intermediate cells, into which the arteries terminate, and from which the veins begin†."

It is a singular fact, that these celebrated anatomists should both have asserted their claims to the merit of what

* Observations on certain Parts of the Animal Economy, by John Hunter, 1786, page 127.

† Anatomical Description of the Gravid Uterus and its Contents, by the late W. Hunter, M.D. London, 1794, page 48.

they supposed to be the discovery of the true structure of the human placenta, and its connexion with the uterus, and that their controversy on this subject should have loosened those bonds of affection which had united them together from their earlier years*.

Noortwych, Rœderer, and Haller, had previously investigated this subject, by injecting the bloodvessels of the gravid uterus: their researches, however, did not determine, in a satisfactory manner, that a vascular connexion exists between the uterus and cells in the placenta. The opinions of the Hunters were generally acquiesced in at the time they were promulgated, and their accuracy has not been called in question by any anatomist of reputation in this country for the last forty years.

In the communication which I have now the honour of presenting to the Royal Society, I propose to describe certain appearances which I have observed in the examination of six gravid uteri, and many placentæ expelled in natural labour, which seem to demonstrate that a cellular structure does not exist in the placenta, and that there is no connexion between this organ and the uterus by great arteries and veins.

If an incision be made through the parietes of the gravid uterus, where the placenta does not adhere, the membrana decidua will be observed lining the internal surface, and numerous minute bloodvessels and fibres passing from the inner membrane of the uterus to the decidua. At the circumference of the placenta, the membrana decidua separates from the chorion and amnion to pass between the uterus and placenta, and thus forms a complete membranous septum, which is interposed betwixt these organs. The chorion and amnion cover the fœtal surface of the placenta; and between these two membranes and the decidua lie the ramifications of the umbilical vein, and arteries subdivided to an almost indefinite extent, and connected together by white slender filaments running in various directions. The placenta thus consists solely of a congeries of the umbilical vessels, covered on the fœtal surface by the chorion and amnion, and on the uterine surface by the deciduous membrane, and enclosed between these membranes; it adheres to the fundus, or some part of the uterus, by innumerable flocculent fibres and vessels.

On detaching the placenta carefully from the uterus, the deciduous membrane is found to adhere so closely to the umbilical vessels which it covers, that it is impossible to remove it without tearing these vessels. With the fibres uniting the placental decidua to the uterus, are mingled numerous small bloodvessels, proceeding from the inner membrane of the uterus to the decidua; and these vessels, though more numerous at the connexion of the placenta with the uterus, exist universally throughout the whole extent of the membrane. There is no vestige of the passage of any great bloodvessel, either artery or vein, through the intervening decidua, from the uterus to the placenta; nor has the appearance of the orifice of a vessel been discovered, even with the help of a magnifier, on the uterine surface of the placenta. This surface of the placenta, deprived of the deciduous membrane, presents a mass of floating vessels, its texture being extremely soft and easily torn; and no cells are discernible in its structure, by the minutest examination.

At that part of the surface of the uterus to which the placenta has been adherent, there are observable a great number of openings leading obliquely through the inner membrane of the uterus, and large enough to admit the point of the little-finger: their edges are perfectly smooth, and present not the slightest appearance of having been lacerated by the removal of the placenta. In some places they have a semilunar or elliptical form, and in others they resemble a double valvular aperture. Over these openings in the inner membrane of the uterus, the placenta, covered by deciduous membrane, is directly applied, and closes them in such a manner that the maternal blood, as it flows into the uterine sinuses, cannot possibly escape either into the cavity of the uterus or into the substance of the placenta. The above appearances on the inner surface of the uterus have been accurately represented by Rœderer.

When air is forcibly thrown either into the spermatic arteries or veins, the whole inner membrane of the uterus is raised by it; but none of the air passes across the deciduous membrane into the placenta, nor does it escape from the semilunar openings in the inner membrane of the uterus, until the attachment in the deciduous membrane to the uterus is destroyed. There are no openings in the deciduous membrane corresponding with these valvular apertures now described, in the internal membrane of the uterus.

If a placenta be examined which has recently been separated from the uterus in natural labour, without any artificial force having been employed, its surface will be found uniformly smooth, and covered with

* Their letters are preserved in the Archives of the Royal Society.

the deciduous membrane; which could not be the case did any large vessels connect it with the uterus. The placenta, in a great majority of cases, is also detached from the uterus after labour, with the least imaginable force; which would be impossible, if a union by large blood-vessels, possessing the ordinary strength of arteries and veins, actually existed. Besides, a vascular connexion of such a kind would be likely to give rise, in every case, to dangerous hemorrhage subsequent to parturition, a circumstance not in accordance with daily experience.

Noortwych, Rœderer, Haller, Dr. W. and Mr. J. Hunter, and Dr. Donald Monro, do not appear to have examined the gravid uterus and its contents in the natural state of the parts, but after fluids had been forcibly injected into the hypogastric and spermatic arteries. The laceration of the deciduous membrane covering the orifices of the uterine sinuses followed this artificial process, as well as the formation of deposits of injection in the vascular structure of the placenta, giving rise to the deceptive appearance of cells. That this took place in the examinations made by Rœderer* and Monro†, does not admit of dispute; and the following facts render it more than probable that the Hunters were also misled, by the effects of artificial distention of the placenta, from the extravasation of the fluids forced into the uterine vessels.

In the course of last autumn, the preparations of the gravid uterus in the Hunterian Museum at Glasgow, were examined at my request by Dr. Nimmo; and in none of them does it appear certain that any great bloodvessels pass from the uterus into cells in the placenta; but in many the deposits of injection, causing the appearance of cells, were observed evidently to be the result of extravasation. No preparation in the collection seems to have been expressly made for the purpose of proving or disproving the fact that the deciduous membrane passes over the uterine surface of the placenta; but in reference to preparation R. R. No. 139, it is observed by Dr. Nimmo that no vascular openings are visible in the membrane interposed between the uterus and placenta.

No. 178, "is a small section of the uterus, with the veins injected green, and broken off where they were entering the placenta." The surface of the injected matter is smooth; the edges of the openings defined, and quite unlike ruptured vessels; their form in general elliptical, seeming as if they were holes cut in the side of a convolution.

No. 125. "A portion of uterus and placenta, the latter injected from uterine vessels." There is an opening which seems to be natural, corresponding to one of those in the uterus; but the majority of those whereby the injection has passed into the placenta, seem to be mere lacerations.

No. 101. "A section of uterus with veins injected black, and the injected matter protruding by irregular plugs into the cavity of the uterus." The holes are semilunar and elliptical, with defined edges, and nothing resembling the continuation of vascular tubes to be seen.

R. R. 121, is described in the printed catalogue as follows: "A small portion of placenta and uterus, where the cells of the placenta have been injected from the veins of the uterus. The veins are seen very large, entering the substance of the placenta."

Dr. Nimmo makes the following observations on this specimen: "This preparation seems to be most in point. I would describe it differently. The cellular substance of the placenta has certainly been filled from the uterine vessels. These, however, instead of passing directly into the placenta, are distinctly seen applying their open mouths to the membrane of the placenta, where the injection in some instances stops. The membrane is thinner here than where no vessels are applied, consisting, so to describe it, of one layer, while a second layer covers all other parts. Where the injection is passed into the substance of the placenta, it has evidently been forced to the side between the layers, and found some weak point, whereby it has entered into and been diffused throughout the cellular texture of the placenta*."

In the museum of the Royal College of Surgeons of London, there is a preparation of the uterus with the placenta adhering to the inner surface, which is supposed to have been put up by Mr. Hunter himself nearly fifty years ago. The vessels, both of the uterus and placenta, have been filled with injection, and the parietes of the uterus, placenta, and membranes, have all been divided by a vertical section into two nearly equal portions. By permission of the Board of Curators, I have been enabled to examine one of these por-

* Icones Uteri humani, Observationibus illustratæ. J. G. Rœderer, 1759.

† Essays and Observations, Physical and Literary, read before a Society in Edinburgh, 1754, vol. I.

* My friend Samuel Broughton, Esq., F.R.S., during a recent visit to the Hunterian Museum at Glasgow, examined the preparations of the placenta and uterus at my request, and authorizes me to say that his observations fully confirm the accuracy of Dr. Nimmo's statements.

tions, and to have a drawing of it made. In the interstices of the muscular fibres I observed the veins of the uterus, which ran in great numbers towards the part where the placenta adhered. They were of an oval form, their long axes being in the long axis of the uterus. The muscular fibres ran longitudinally from the fundus to the os uteri.

The deciduous membrane was everywhere covered with minute, tortuous bloodvessels, proceeding from the inner surface of the uterus, and filled with injection. There was no appearance of vessels of any magnitude passing between the inner surface of the uterus and placenta; but flattened portions of injection were observed in this situation, having in many parts the form of thin layers, which had obviously escaped from the orifices of the uterine veins. Elsewhere the injection had lacerated the deciduous membrane, and formed deposits in the vascular part of the placenta.

The facts which have now been stated warrant, I think, the conclusion, that the human placenta does not consist of two parts, maternal and fœtal; that no cells exist in its substance; and that there is no communication between the uterus and placenta by large arteries and veins. The whole of the blood sent to the uterus by the spermatic and hypogastric arteries, except the small portion supplied to its parietes and to the membrana decidua by the inner membrane of the uterus, flows into the uterine veins or sinuses, and after circulating through them, is returned into the general circulation of the mother by the spermatic and hypogastric veins, without entering the substance of the placenta. The deciduous membrane being interposed between the umbilical vessels and the uterus, whatever changes take place in the fœtal blood must result from the indirect exposure of this fluid, as it circulates through the placenta to the maternal blood flowing in the great uterine sinuses.

Since the preceding paper was forwarded to the secretary of the Royal Society, the following valuable communication has been received by the author from Mr. Owen, to whom portions of the gravid uterus and placenta were submitted for minute examination:—

"Lincoln's Inn Fields,
17th November.

"My dear Sir,—During the time you were examining the Hunterian preparation of the uterus and placenta in the Museum of the Royal College of Surgeons, your observations on the obscurity produced by the extravasated injection, led me to think of some less objectionable mode of demonstrating the vascular communication between the uterus and placenta, if it existed; or of proving more satisfactorily than the appearances you pointed out in that preparation seemed to do, that there was no such communication.

"You have since afforded me the means, through the kindness of Mr. Alex. Shaw, of examining, in the manner I wished, the anatomical relations between the placenta and uterus. This had been done by dissecting the parts under water before disturbing them, either by throwing forcibly foreign matter into the vessels, or by separating the placenta from the uterus, to observe the appearances presented by the opposed surfaces,—a proceeding which, if done in the air, is liable to the objection of the possibility of having torn the vessels which were passing across, and the coats of which are acknowledged, by those who maintain the existence of such vessels, to be extremely delicate.

"The mode, therefore, which was adopted to avoid these objections, was to fix under water, in an apparatus used for dissecting mollusca, &c., a section of the uterus and placenta, and, commencing the dissection from the outside, to remove successively and with care the layers of fibres, and trace the veins as they pass deeper and deeper in the substance of the uterus in their course to the deciduous membrane; in which situation, as the thinnest pellicle of membrane is rendered distinct by being supported in the ambient fluid, I naturally hoped in this way to see the coats of the veins continued into the deciduous membrane and placenta, and to be able to preserve the appearance in a preparation, if it actually existed in nature. But in every instance the vein, having reached the inner surface of the uterus, terminated in an open mouth on that aspect; the peripheral portion of the coat of the vein, or that next the uterus, ending in a well-defined and smooth semicircular margin, the central part adhering to, and being apparently continuous with, the decidua.

"In the course of this dissection, I observed that where the veins of different planes communicated with each other, the central portion of the parietes of the superficial vein invariably projected in a semilunar form into the deeper-seated one; and where (as was frequently the case, and especially at the point of termination on the inner surface) two, or even three, veins communicated with a deeper-seated one at the same point, these semilunar edges decussated each other, so as to allow only a very small part of the deep-seated vein to be seen. I need not observe to you how admirably

this structure is adapted to ensure the effect of arresting the current of blood through these passages, upon the contraction of the fibres with which they are everywhere surrounded.

"On another portion of the same uterus and placenta (which were removed from a woman who died at about the fifth month of utero-gestation), I commenced the examination under water, by turning the placenta and deciduous membrane from the inner surface of the uterus. In this way the small tortuous arteries that enter the deciduous membrane were readily distinguishable, though not filled with injected matter; and as it was an object to avoid unnecessary force in the process of separation, they were cut through, though they are easily torn from the decidua. But with respect to the veins, they invariably presented the same appearances as were noticed in the first dissection, terminating in open semicircular orifices, which are closed by the apposition of the deciduous membrane and placenta. This membrane is, however, certainly thinner opposite these orifices than elsewhere; and in some places appeared to be wanting, or, adhering to the vein, was torn up with it; but in these cases the minute vessels of the placenta only appeared, and never any indication of a vascular trunk or cell commensurate with the size of the vein whose terminal aperture had been lifted up from the part.

"The preparation which accompanies this letter, shows the termination of a vein on the inner surface of the uterus, and an artery of the decidua cut through, with the corresponding appearances on the surface of the placenta; also the valvular mode in which the veins communicate together in the substance of the uterus.

"I remain yours, very truly,
"RICHARD OWEN."

PURULENT DISCHARGE FROM THE AUDITORY PASSAGE, CALLED OTORRHŒA,

Asserted by M. Itard to be a General Characteristic of

DEAFNESS AMONGST THE ENGLISH.

To the Editor of THE LANCET.

SIR,—M. Itard, in his work, vol. 1, p. 233, says, "Otorrhœa is a malady the most frequent, the most serious, and the most known, of those affecting the auditory organs;" at the same he remarks, that practitioners even slightly acquainted with the diseases of the ear, cannot fail to have been astonished at the almost interminable duration of this disease, the difficulty as well as danger which presents itself to the cure, and the fatal catastrophes that sometimes terminate it.

The difficulty of treating this disease successfully, has probably caused *some* of the aurists of the present day to advise patients so affected to leave all to nature; and many general surgeons who pretend to a knowledge of the subject, follow their example, whilst there are others calling themselves aurists, who promise a certain cure in a fixed period of time—that is, if the patient have money, when they will, in the most artful manner, excite his hopes, and try experiments as long as the patient will find the guineas; thus diseases, which in their commencement might be relieved by proper treatment, become chronic, of interminable duration, and sometimes end fatally.

M. Itard divides otorrhœa into several classes, occupying eighty-three pages, including his treatment of it, but I must not intrude on your work by more than a general notice of some of his distinctions: his treatment, making allowance for the predilection of French medical men for ptisans, &c., is judicious; long before I heard of M. Itard, I always successfully adopted the method of endeavouring to cure the complaint by internal medicine, but never attempted to check the discharge by astringent lotions only. Our countryman Saunders fell into the error of depending on surgical manipulation alone, as his practice consisted in the application of topical remedial lotions.

M. Itard, in his account of mucous otorrhœa, one of his divisions, considers it to arise from inflammation of the auditory organs, through catarrh, which becomes chronic in some persons of phlegmatic temperament, and still more so in others where scrofulous diathesis prevails. The injudicious stoppage of this discharge, either by astringent lotions, or even by exposure to a cold atmosphere, as I have noticed in my works, has occasioned, though rarely, a translation of this disease to the brain, and has caused death, as was evidently the fact by the appearances on the post-mortem examination. M. Itard says the metastasis is more ordinarily confined to the eyes, and the cutaneous system; in two instances that enlargement of the glands of the neck succeeded, and in one a tumefaction of the testis; this latter case occurred to an adult, who, from being young, and of good conduct, could not be suspected to have had syphilis. I have no doubt that M. Itard believed all these metastases, but I consider many of his cases hypothetical.

M. Itard mentions purulent otorrhœa, which he considers to be a complication of purulent otitis and catarrhal otorrhœa, as not sufficiently defined to class it specially. This form of the disease attacks the internal parts of the ear, the mastoid cells become carious, the petrous portion of the temporal bone next follows, the dura mater becomes inflamed, suppuration succeeds, the inflammation reaches the brain, and the disease becomes mortal. What a dreadful state of disease is here most truly described! and yet such is the disgraceful state of aural surgery, that in proportion to the consummate ignorance of some of those who endeavour to attract patients, so they adopt the more impudently-puffing advertisements and gross falsehoods; one of them publishes his biography, in which he states that he is "the only member of the College of Surgeons who attends to diseases of the ear in the metropolis," whereas I was informed by Mr. Balfour at Surgeons Hall, that the sapient gentleman had more than once sought the admission, but on examination was turned back as unqualified. Yet to such as these do the afflicted apply, and happy indeed should they think themselves, if they discover the ignorant charlatan before he has made their case hopeless.

In No. 410, p. 465, of your work, I gave a case which I presume M. Itard would consider a complication of otitis and otorrhœa, but which, fearful of being unintelligible, I described as it really existed, in which I arrested the progress of the disease before it had completely rendered the whole of the mastoid cells carious. Before this lady came to town, Mr. Curtis had the case sent him by the medical attendant on the family, with a request that he would advise upon it. Mr. Curtis gave his usual prescription, ox-gall, with either tincture of castor, or Peruvian balsam, I forget which, nor is it important, as they are alike ridiculous, to be applied to the auditory passage; and as this was rather an extraordinary case, he added the tartarised antimony ointment to be rubbed behind the ear. Now what could be expected from such treatment, but that the disease would progress to the state in which I found it?

M. Itard may probably with reason suppose otorrhœa to be common in England; it is a troublesome disease; it requires great perseverance, attention, and ability, to attain success in treating it; and the inefficient methods adopted by some practitioners—their blisters, setons, mercurials, and other equally ignorant modes of treatment, fatigue the more opulent patient; and as he can afford to visit Paris, he is attracted by M. Itard's copious remarks in his work on otitis and otorrhœa, to consult that gentleman; but I deny that the greater number of the English afflicted with deafness are so through otorrhœa, or that it is a general characteristic of deafness amongst the natives of this country. I am, Sir,

Your obedient servant,

W. WRIGHT
Surgeon Aurist.

18, Sackville Street, Piccadilly,
April 15, 1833.

VACCINATION.

POINTS PREFERRED TO GLASSES.

To the Editor of THE LANCET.

SIR,—I have for some considerable time made the method of performing vaccination a principal study, and have looked over the various, and, I may add, voluminous, disquisitions of the principal writers on the subject, with an unprejudiced eye; have arranged their theories, and drawn from them some very useful axioms, which have materially advanced my confidence in the paramount utility of vaccination. I will now give you a few of the conclusions at which I have arrived. In the town in which I reside, and the adjacent villages, variola made its appearance last October, in such a confluent form among the lower classes, as induced the parish authorities, both in town and in the villages, to order a general vaccination. The gentleman with whom I am passing my term of apprenticeship was appointed a vaccinator by the authorities, in conjunction with the other surgeons of the place; and he had likewise the entire vaccination in four country parishes, being surgeon to them. Lymph, as will be supposed, was not plentiful, which induced us to write to the National Vaccine Institution for a supply. By a return of post it came; and I cannot too highly commend the alacrity with which that excellent institution always supplies the calls of the profession. We set about vaccinating the town immediately. By the time our glasses were exhausted, two hundred had been done, and we quietly waited eight days for the supply which we expected from the arms. What, Sir, however, was our vexation to find only thirty, out of the two hundred, with a vesicle upon them! The vaccine lymph being smeared on glasses instead of placed on points, afforded a reason to which we imputed our failure; and, by after practice, we found that not two cases out of fifteen ever came to a proper head when vaccinated from

glasses, whereas every case in which we employed points, with but a few exceptions, rose beautifully.

It is well known by those who vaccinate much, that it is necessary to breathe upon the glass, or hold it over the steam of boiling water, before taking the lymph from the glass, on the apex of the lancet, to insert it in the arm. The reason of failure is, therefore, manifest. Two-thirds of the liquid introduced into the arm is nothing less than the pure exhalation from the lungs of the operator, or the steam of water, which at once accounts for the failure of the operation. Besides, when glasses are used instead of points, it is impossible to know when the lymph upon them is expended, and I would strongly advise the profession to discard glasses entirely from use. Owing to the difficulty of procuring points, we adopted in the country the practice of vaccinating from the recent arm from two vesicles. I vaccinated ninety children in succession, and the result was, that eighty-eight out of the number rose admirably. But, of course, it would be impossible to keep up the supply of lymph in this manner. I only mention it to show its great superiority in all cases where an arm can be procured when vaccinating large communities.

In three parishes we vaccinated from recent arms, and with complete success, in one whereof, points were used with the like good effect.

The object, Sir, of my troubling you with these remarks is to impress upon the profession the necessity of discarding from practice glasses entirely, and to institute in their place points, which will only be attended by the paltry difference of being rather more expensive.—I am, Sir, your obedient,

GEORGE J. PERRY.

Andover, Hants, April 1, 1833.

COMPLAINT FROM A READER IN THE LIBRARY OF THE COLLEGE OF SURGEONS.

To the Editor of THE LANCET.

SIR,—Having been in the habit of reading in the library of the College of Surgeons for some years past, I cannot as a member of the College longer refrain from animadverting on the dusty state of the room and cases. When the librarian opens one of the latter to procure a book, he almost immediately disappears in a cloud of dust. It is strange that the Council cannot, out of the large funds at their disposal, employ some person to keep the library decent. Their funds would also, I should imagine, enable them to have the fires lighted an hour earlier than at present, for when I have gone in at ten o'clock in the morning I have found the room excessively cold, the fires having been but just kindled. It would be well, perhaps, to give the superintendence of these matters to some of the ladies who swarm in our worthy secretary's office, to the great distraction, no doubt, of his attention. It is a complaint of several of my friends, and I must say I have felt the annoyance myself, that when they have had occasion to see the secretary, he is beset with these ladies. The College should certainly allow its officers some other apartments for their families than the office. I am, Sir, yours, &c.

Δελτα.

March 13th, 1833.

DERIVATION OF "CHOLERA."

To the Editor of THE LANCET.

SIR,—Seeing that, within the wide range of science and literature, nothing, however remotely connected with medical research, is rejected from admission into your valuable Journal, I presume to correct a random attempt at the exploration of the term "cholera," as published in No. 499. After rejecting the various Greek sources from which cholera is conjectured to be derived, the Cambridge scholar at Caen flies to Hebrew, and then fancies an Egyptian origin, of the age of thirty centuries. I shall, however, show upon what erroneous data he has founded this conjecture. *Cholé* חֹלֶה, sick, is the participle of *chala* חָלָה, *vide* Genesis, cap. xlviii. ver. 1. *Choli* חֳלִי is the noun *morbus*, and conveys none but a general idea—in fact, it is what grammarians term "nomen genericum." Thus, in Deuteronomy, cap. vii. ver. 15, בְּכָל, "all" is added, as also in cap. xxviii. ver. 61. The same qualification is used in Exodus, cap. xv. ver. 26. In fact, the term is never employed in any of its forms but in a general sense, and in all other cases its peculiar location is always expressly annexed; thus in 2 Chronicles, cap. xxi. ver. 16, the bowels are described as the seat of the disease.

Ra, as Mr. Smith writes it, but more properly *rang*, רָע, means "evil," and

is adjectively used for "bad," hence it is a common adjunct to many nouns, but this also is in a general sense, and bears no other peculiar modification than *malus*. Mr. Smith is right when he says—"Il est appliquée a tout ce qui est mauvais," but is not "un superlatif." In the latter case, the Hebraic idiom uses the "double" רַעְרַע, *vide* Proverbs, cap. xx. ver. 14.

The quotations from Psalms, xxix. ver. 3, is made under a mistake, יְחִיל is derived from *radix* חוּל, to *tremble* or shake, *vide* Psalm cxiv. ver. 6, and has no relation to the word treated of.

Upon the whole, there does not appear the most remote connexion in this speculation which can throw a gleam of light on the origin or nature of cholera morbus.

I am, Sir, yours,

J. V. O.

Liverpool, April 1, 1833.

THE LANCET.

London, Saturday, April 20th, 1833.

In the Court of King's Bench on Tuesday last, Mr. BARSTOW moved for a rule requiring the Apothecaries Company to show cause why the verdict in the case of that Company versus COLLINS (a cause recently tried in the country) should not be set aside, on the ground that physicians belonging to the Scotch Universities are not liable to the regulations of the Apothecaries Company.

The LORD CHIEF JUSTICE observed on this occasion, that the Act contained no exception in favour of Scotch physicians.

Mr. Justice LITTLEDALE said, that the Act did not in any way allude to the Scotch Universities as affecting their privileges, but referred only to England and Wales. The rule was refused.

On the trial of the cause here referred to, it was proved that Dr. COLLINS had prescribed, prepared, and supplied, medicines in medical cases. It was also proved, that he held the diploma of a Scotch University, but that he had been honoured by receiving no license from the Drug Company of Rhubarb Hall. Hence he was mulcted in the penalty of twenty pounds. The remark that fell from Sir THOMAS DENMAN, showed that he perfectly understands the restrictive clauses of 1815; but Mr. Justice LITTLEDALE, although one of the very best informed and one of the most impartial of our judges, does not appear to have examined that statute with the care which he usually devotes to the subjects that fall under his cognizance. Dr. COLLINS did not allege that the act interfered with the Scotch Universities, but he complained that the act interfered with him as a physician holding a Scotch diploma,—that he was prevented by the act of 1815 from practising as an apothecary in England; in other words, that he has been successfully prosecuted, and fined twenty pounds, for having dispensed the medicines which he had himself prescribed as a legally-authorized practitioner. This was the point at issue, and Sir THOMAS DENMAN in refusing the rule, acted upon the cold, iron, letter of the law. We say not that he was wrong, because in the 5th section of the act of 1815, it is expressly declared, "That if *any* person shall exercise the art and mystery of apothecary in any part of England or Wales, after the first day of August 1815, without a license from the Worshipful Society of Apothecaries of London, unless the individual was actually in practice as an apothecary on or before the first day of August in that year, he shall be liable for every offence to a penalty of twenty pounds." And in the 29th section of the same statute, with reference to the Universities, it is observed,—"That nothing in the act shall extend or be construed to extend to defeat or in anywise interfere with the rights and privileges of the Universities of Oxford or Cambridge, or the Royal College of Surgeons, other than, and except such as, shall or may have

been altered, varied, or amended, in or by the said act."

Now, observe. This refers to the *English* Universities,—to the favoured institutions of Oxford and Cambridge,—to the chartered Colleges of Physicians and Surgeons of London. *Their* rights were only to be affected as they were altered or amended by the act. And pray, of what did that alteration consist? How far did it extend? How did it interfere with the graduates of the University, with the fellows and licentiates of the Royal College of Physicians? How did it meddle with the immunities of the commonalty of the Royal College of Surgeons? Why, by preventing one and all of them from preparing and supplying in medical cases the medicines prescribed by themselves, or by other legally-authorized persons in *any* part of England and Wales!

We make this statement, because we observe with surprise, that the gentlemen in the North of England who are now laudably engaged in addressing the legislature respecting the obnoxious, the illiberal, restrictions of the Apothecaries Act, seem to consider that gentlemen who hold diplomas from the Scotch Universities, are alone the victims of the restraints of that abominable statute. It is well, therefore, to disabuse their minds in this matter, for by doing so we shall place them in a position more effectually to pull with the great mass of English and Irish surgeon-apothecaries in their endeavour to obtain the TOTAL REPEAL of the Apothecaries Act, and to substitute for it a measure, the promoters of which shall have but two great objects in view,—the preservation of the public health, and the protection of the members of the medical profession.

Our condemnation of the Apothecaries Act has been unremitting since THE LANCET appeared in October 1823. In No. 108 of this Journal, published in 1825, we thus declared our opinions in relation to this measure:—

"The preamble of the Apothecaries Act ought, in consistency with its general tone and spirit, to have run,—'Whereas, it is expedient to grant a monopoly to the Apothecaries Company,'—for there is scarcely a clause in the act which is not manifestly framed with a view of putting money into the pockets of these incorporated tradesmen. * * * If public utility had been the object of this act, it would be nugatory, for the chemist or druggist who compounds without administering medicines, is exempted from its operation. It is, in effect, a private act, and was framed for private purposes. It was projected by avarice, supported by intrigue, and enacted by ignorance. It is high time that the members of a liberal profession emancipated themselves from the domination of a company of ignorant and mercenary pharmacopolists, and we shall use our most strenuous exertions to collect the feeling of the profession on this subject, before its discussion in a new session of Parliament."

If the press and the profession generally had seconded the exertions made by this journal, the Apothecaries Act would long since have ceased to disgrace the Statute Book. But the English would even seem to be as prone to submit to abuse as to complain of it. Even now, the petitions which are flowing in on the Secretary of State for the Home Department, and on the House of Commons, from the Scotch practitioners residing in the North of England, do not treat of the operations of this act, or of the defective state of medical law generally, in a manner that is calculated to bring a full and effective measure of relief. A is anxious that *he* may be relieved. B is restrained in his movements, and *he* desires to be set free. C has a Scotch diploma, and longs for the privilege for himself of physicking the people as an *apothecary* in England. D belongs to the Edinburgh College of Surgeons, and he prays that *he* may be allowed to administer quinine in ague, and digitalis in ascites, to the inhabitants of some snug little town on the south of the

Tweed. E of the Dublin College of Surgeons beseeches that *he* may be allowed to administer a remedy for a cough, without the risk of incurring a penalty of 20*l.* to a patient, whose leg he is allowed by law to treat for the cure of a fracture, or whose thigh he may amputate with legal impunity at the hip-joint. Thus, individual convenience or disability appears in each case to be the source of active exertion on the part of the petitioners, and no wonder that in such restricted views the great principle on which medical legislation should be founded, is left entirely out of consideration.

When men stand forward to demand their rights, we are utterly at a loss to understand what useful purpose can be achieved by their putting on the garb of humility. Patient endurance under the infliction of wrong is not the submission of virtue but of vice, and tends to an entire estrangement from the paths of rectitude and manliness. The Universities of Scotland have throughout displayed a pusillanimity of conduct utterly out of character with institutions that pretend to literary and scientific reputation. If these bodies had discharged their duty in 1815, when the Apothecaries Bill was before the legislature, that Bill would not have become an Act of the Parliament. The Dublin Colleges were equally inactive, and so were the two Royal Colleges of London. But it may be true that all remained quiescent while the Apothecaries Bill was under discussion, from one motive —that of selfishness; for it has been alleged that each University and College permitted the Apothecaries Bill to pass without offering any determined opposition to it, in the expectation, that if the legislature sanctioned the granting of a lucrative monopoly to one medical company, it would display an equal share of liberality to each of the others. Accordingly in the very next session of Parliament, the College of Surgeons caused a Bill to be introduced into the House of Commons, in which that section of the Apothecaries Act was paraphrased, which confines prescribing, dispensing, and attending in medical cases, to the Licentiates of the Worshipful Company. In short, the Council of the delectable College in Lincoln's-inn Fields, sought to make it illegal for any man to practise surgery in any part of England or Wales, unless he has purchased a license to kill, at their reputable certificate shop. The scheme, however, was defeated, and, strange to say, by the strenuous opposition of Mr., now Sir ROBERT, PEEL.

The Colleges and Universities, therefore, had they been honest, might have occupied a commanding and invincible position; but by submitting to be influenced in their conduct by grovelling and sordid motives, they became, first powerless, and secondly perpetually disgraced.

Does it follow, however, that the gentlemen who hold the diplomas of the heads of the Colleges and Universities of that day, share in any respect in the odium which attaches to their supineness and selfishness on that occasion? Obviously not. They have complied with all the rules and ordinances set for the guidance of medical students,—have successfully prosecuted their studies,—have submitted to examination infinitely more searching than those enforced by the Worshipful Company, and have received diplomas giving them a legal qualification to practise as physicians and surgeons.

Rejoiced are we, therefore, at perceiving that in addressing the legislature, there are amongst them some who speak out with the degree of boldness which is the surest characteristic of a consciousness of right; and who, when demanding a redress of unmerited grievances, do not exhibit

the slightest fear of the tyrants whose conduct they condemn.

The memorial signed by the Edinburgh graduates and licentiates of the Royal College of Surgeons of Edinburgh, residing at Scarborough and in the adjoining districts of the North and East Ridings of Yorkshire, is written in a spirit which augurs the triumph of their cause. In this document there is no evidence of a patient submission to wrong, no sign of a desire to conceal the truth in asserting their prerogative to be placed under the protection and security of just laws. We must quote two or three passages from this document:—

"Your memorialists regret that the legislature yielded to the importunities of the Apothecaries Company, in granting them such extensive powers over the medical profession in England; and they have strong reasons for doubting the competency of any Society of London Apothecaries to examine an Edinburgh graduate, or licentiate, as to his proficiency; as these men and their company are utterly unknown in the history of medicine, and bear the same rank in medical science as does the Fishmongers Company in natural history, or the Stationers Company in general literature; being little more than dealers in the raw materials,—namely, in drugs, of which they keep a shop for the wholesale and retail selling thereof, and are far more nearly allied to commerce than to science. Farther, the Society might be challenged to name one individual of their body, whose reputation has risen above the most unenviable mediocrity. We challenge them to name one important medical or chemical improvement or a discovery that has emanated from Apothecaries Hall, and the humblest Edinburgh licentiate would not feel vain, did he possess in his single person the whole medical reputation of the Worshipful Society of Apothecaries. * * * * It is galling to men educated in Scotch Universities, that the moment they cross the Tweed, they rank, in the eye of the law, with worm-doctors, bone-setters, cow-leechers, and the whole herd of charlatans and impostors that fatten on the infirmities and gullibility of the credulous. It is sickening to every well-regulated mind, that he is liable to be dragged into a court of law, and mulcted in ruinous fines,—not because he does not know his profession,—not that he is an uneducated pretender,—no, but because he has not had his education regulated according to the lucid ideas of a self-elected and close corporation of London Apothecaries,—because he has not scoured mortars and compounded pills and prescriptions, for some two former years of his life, which he cannot recall, to procure him a license that neither raises him in his own estimation, nor in that of the public. * * * Your memorialists crave an entire exemption from the control of the London Apothecaries Company. They at the same time seek no exclusive advantages, but rather would that all graduates of Universities, licentiates of Colleges, and other respectable and properly-authorized bodies, were placed on an equal footing."

The memorial presented to Lord MELBOURNE, by various practitioners residing in Liverpool and its vicinity, is couched in similar terms of liberality with regard to the licentiates of the Colleges, and prays for no exclusive privileges for the memorialists; but in the last-mentioned document there is not exhibited the evidence of independent spirit which is so prominent in the former. The following sentence is completely to the point, and is admirable for its simplicity and truth.—"These men and their company are utterly unknown in the history of medicine, and bear the same rank in medical science as does the Fishmongers Company in natural history, or the Stationers Company in general literature."—A greater scandal was never set upon the profession than the passing of the Act of 1815. During upwards of nine years have we denounced the gang of pharmacopolists as unfit to rule over an enlightened profession, and on innumerable occasions have we insisted that the Apothecaries Act must be repealed, and a measure substituted for it suited to the understood wants of society.

But we fear that the members of the legislature have paid so little attention to this subject, that if they were to legislate on the subject of medical practitioners in the present state of their knowledge, they

would repeat many of their former errors, and thereby prolong, if not increase, the number of those difficulties which beset the members of the medical profession.

From the first we foresaw that the Apothecaries Act would be repealed, or be so altered as to be rendered inert. From the list of licentiates just published by the Worshipful Society, we could hope that the Company had become satisfied with their present amount of receipts, having from the summer of 1815 to that of 1831—sixteen years—replenished their coffers, by the powers and authority directly conferred on them by this measure, to the enormous extent of FORTY THOUSAND POUNDS, without at the same time having instituted a single professorship or scholarship, or without having bestowed a hundred pounds as a gratuity for promoting the cultivation of medical science.

It is only right that we should remind the petitioners against the Act, that they have as yet struck only the first blow against the monster of their indignation. Many more efforts will be required, as the work of reformation has scarcely yet commenced.

AN epidemic of a mild, but somewhat anomalous character, has prevailed in the metropolis within the last fortnight, to an extent far surpassing that of any similar affection within the recollection of the oldest practitioner. It broke out after the cold easterly winds which persecuted animals and vegetables during several days about three weeks since, and the complaint has become so general since our last Number was published, both in London and the villages around, that it is believed that the inhabitants of even the smallest street in the metropolis have not entirely escaped. In many houses every individual has been affected. In some of the manufactories suspension of part of the works has taken place. In one establishment in the city, thirty-two out of thirty-seven shopmen were confined to their beds on the same day. Even the theatres have been closed on several evenings, in consequence of the illness of the performers on the one hand, and the supposed incapability of the public to attend on the other. Under these circumstances, we experience some relief in being able to state that in few instances has the complaint assumed a serious form, and in no instance have we heard that the actual epidemic has proved fatal. The attack is often extremely sudden, the person complaining at the instant of pain in the forehead, an aching of the eyelids, oppression at the stomach, with coldness and aching of the limbs, quickly followed either by coughing or sneezing, or both. At other times a sensation of sickness is described as the first sign of indisposition. In some instances the patient is first seized with a violent fit of sneezing, with exceedingly severe headach, and extreme pain in the limbs. The cough in many instances is particularly distressing, and in most cases there is a copious discharge of muco-serous fluid from the air-passages. In the treatment it has been observed that great relief has been afforded by promoting the secretions of the kidneys and the skin. The remedies employed with this view have been various, but the most useful would appear to be saline aperients, antimonials, and the vapour-bath. The administration of opium in any form, without relieving the pain felt in the limbs, has added to the sensations of pain and dulness in the head. On the subsidence of the febrile symptoms, so much exhaustion has been apparent, even after a short continuance only of the complaint, that venesection has not been sanctioned or adopted by practitioners of experience. We may conclude this notice by relating an illustrative anecdote, of an old and highly respectable physician, residing at

the west-end of the town, who, on being invited to join a party at dinner on Monday last, exclaimed, "Bless me, you have lost your senses surely! I have not a moment to spare. In the very thick of my best harvest. Best thing I ever had; quite a God-send; everybody ill, nobody dies,—so the recoveries are all cures you know."—"'Escapes,' you mean, Doctor," rejoined his unprofessional friend, and so they parted.

PREPARATION OF IODIC ACID.—A WORD TO STUDENTS OF CHEMISTRY.

Such of our readers as are fond of chemical pursuits, would employ themselves advantageously in seeking to discover a certain and *easy* method of preparing this acid; could we but procure it in sufficient quantities, its use as a reagent would infallibly lead to the material amelioration of our means of detecting several vegetable poisons in complicated mixtures. Of the modes recommended in the class-books of chemistry—namely, the reaction of moistened iodine on euchlorine gas, and the decomposition of the iodate of potash by sulphuric acid—it is almost sufficient to say that the one is dangerous, uncertain, and scanty in its product, and that the second is still more uncertain and troublesome.

Our attention has been recently turned to this subject, by the perusal of various proposals for effecting the desired improvement. The proposals are not the less interesting, too, as affording illustrations of the contradictions in which practical chemists often unhappily involve themselves. Dr. Connell is the author of the first process to which we allude. He directs us to boil iodine in nitric acid in a Florence-shaped flask, washing back the iodine as fast as sublimed on the sides and neck of the vessel, and continuing the process until no nitrous acid is evolved. The solution is then to be cooled, and the crystallized iodic acid allowed to subside. The late M. Serullas repeated this process ineffectually, but he was apparently fortunate enough to discover a better one—namely, the use of nitric acid saturated with nitrous acid, by passing a stream of the latter through the former. We have, lastly, M. Duflos, who states that nitric acid, when concentrated as much as possible, but exempt from nitrous acid, can change one-fifth of its weight of iodine into iodic acid, but that the fuming nitric acid, which contains the nitrous acid, does not effect the change at all. Who is to decide between such conflicting authorities? We have carefully and anxiously repeated all the processes in question. By the first we wasted in vain our iodine, nitric acid, spirits of wine, time, and patience, and after several hours work obtained no result. With the second we were more successful, having by six hours actual ebullition, and two days cooling, decanting, &c., obtained from two drachms of iodine one-twelfth grain of iodic acid. The third process was too like the first to encourage us to persevere in it long. We therefore suggest the subject as a useful exercise to our junior friends who deal in experiments. We promise the solver of the problem no inconsiderable degree of reputation.

THE NEW EPIDEMIC IN PARIS.

M. Sedillott, one of the surgeons of the Val de Grace, has made a communication to the *Gaz. Médicale*, relative to the singular epidemic disease of the feet which at present pervades Paris and its neighbourhood, which we last week mentioned. The following case sufficiently illustrates the symptoms of the existing disorder:—

"Febre T**, private in the 22nd regiment, ætat. 26, of rather delicate constitution, was admitted to the Val de Grace on the 16th March. Having been for a short time in Paris, on furlough, he had suffered some uneasiness in his left foot, after a forced march, when suddenly there supervened considerable redness and inflammation about the tibio-tarsal articulation, with œdema of the foot, which rapidly increased, with great heat, intense pain, and impossibility of moving the parts affected. This state had lasted four days when he was admitted. The entire of the back of the foot was then red; the œdema had extended to the toes; little pain on pressure, but excessive pain on

the least motion. Distention of the tibio-tarsal synovial membrane, which projected before the malleoli, and allowed us readily to perceive the effusion it contained. Three applications of 30, 15, and 15 leeches each; low diet, and tartar-emetic injections, were followed by a diminution of the symptoms, so that on the 25th March there only remained a slight degree of œdema of the foot. The effusion having, however, recurred, was completely removed by the application of a blister."

In certain cases the redness and œdema are absent, and the cellular tissue is unaffected. In some the affection extends to both feet, to the hands, and, in rare cases, to all the joints of the extremities, except the hips and shoulders. In one case it has been followed by suppuration, caries, and death. The duration of the disease is not yet clearly determined. No spontaneous cures have been noticed. Several patients have been relieved in a few days by appropriate medical treatment, but in others the symptoms have obstinately resisted every variety of treatment that could be devised. One case of this description, seen by our French correspondent in private practice, was of increased interest, in consequence of the articulation of the lower jaw with the head, having been affected simultaneously with the feet. As yet the epidemic seems confined to adults, and to attack chiefly persons who have been lately convalescent from other maladies, or have been fatigued by long journeys. It does not like the "acrodynia," lately described in THE LANCET, appear to affect any particular localities; cases, for instance, having occurred at Fontainbleau, at Melun, Pens, &c., in the environs of Paris, at the same time that the disease was noticed in different quarters of the capital, and among the rich as well as the poorer classes. As yet, the antiphlogistic treatment is that which has been most successfully employed.

DISCOVERY OF BENZOYLE, THE RADICAL OF BENZOIC ACID.

IT is already known that the volatile oil obtained from bitter almonds, contained along with hydrocyanic acid, the elements capable of producing benzoic acid in contact with the air. In a new essay on this volatile oil, MM. Wœhler and Liebig have succeeded in engaging these elements in such a series of new combinations as clearly explains their natures and proves their existence. These results are of such importance as to promise, as M. Berzelius has observed, "*the commencement of a new era in this department of science*," viz. in organic chemistry.

The oil of almonds, completely purified, is composed of 14 atoms of carbon, 12 of hydrogen, and 2 of oxygen. The elements which give rise to the formation of benzoic acid, are, again, 14 carbon, 10 hydrogen, and 2 oxygen. This proximate compound MM. Wœhler and Liebig denominate "benzoyle," and the oil of almonds in which it exists is consequently a "hydruret" of that substance; or,

14 Carbon
10 Hydrogen
2 Oxygen } Benzoyle,

which, with two additional atoms of hydrogen, forms the oil of bitter almonds. When this is exposed to the air, it absorbs 2 parts of oxygen, 1 of which unites with the benzoyle, and forms benzoic acid; the second with the extra particles of hydrogen, and forms the atom of water which exists in crystallized benzoic acid.

Chlorine, bromine, iodine, sulphur, cyanogen, &c., may substitute oxygen in the reaction with the oil, and the resulting compounds form, when decomposed by water, a hydro-chloride, hydro-bromate, hydriodate, &c., with its hydrogen, and benzoic acid with its oxygen. Thus, the cyanuret of benzoyle is prepared by heating the chloruret of that substance in a small retort with dry cyanuret of mercury. A golden yellow liquid, the cyanuret of benzoyle, distils over, which, when agitated with water, is rapidly changed into the hydrocyanic and benzoic acids.—*Journal de Chimie Médicale, April* 1833.

IMPORTANT OBSERVATIONS ON THE HYGROMETRIC WATER CONTAINED IN FLOUR.

MOST important researches have recently been carried on by MM. PAYEN and PERSOZ, on the several points in the chemical history of bread, flour, and grain. Their observations are not yet published in detail, but we select the following as being of the very highest commercial dietetic importance. They have found, that 100 parts of flour, sold as dry, and imparting no moist stain to blotting-paper, contain, under ordinary atmospheric circumstances, 19 per cent. of water, and but 81 of dry or nutritive matter; that flour exposed to moist air contains as much as 23 per cent. water; that the finest flour employed by the bakers, con-

tains 16 per cent., under ordinary circumstances. In summer, these proportions of water are reduced, but they are remarkably increased in moist weather. Thus, the quantity of flour which by weight, at the rate of 5 per cent. of water, would produce 150 lbs. of bread, will produce but 127½ lbs, when the same weight of flour is purchased in long-continued wet weather.

The price of flour should, consequently, in all seasons be based on the true quantity of dry matter it contains, and which a simple and rapidly performed experiment would exactly indicate. Thus, by placing 100 grains of flour on a plate, and heating this on a vessel of *boiling* water for one hour, the loss sustained will denote the precise quantity of water mixed with the flour. The facts ascertained by MM. Persoz and Payen are published in outline in the last number of the *Journal de Chimie*.

EXPERIMENTS ON THE MODE OF ACTION OF CODEINE, THE NEW SUBSTANCE DISCOVERED IN OPIUM BY M. ROBIQUET.

M. KUNKAL has just published the results of these experiments on rabbits and dogs, undertaken at M. Robiquet's request, and from which he concludes—That it differs from morphia in not paralysing the posterior extremities; that it possesses a marked exciting action, occasioning convulsions of the neck and limbs; that it causes death by its action on the cerebellum and medulla oblongata; that it irritates the circulation, inflames the parts with which it comes into contact, acts more powerfully when introduced into the cellular tissues than in the stomach, and that it has a special suppressing action on the urinary organs.—*Journal de Chimie*.

ADULTERATION OF MUSTARD IN PARIS.

THE indefatigable Chevallier still pursues the adulterators of Paris with his usual sagacity. Mustard is the last alimentary substance which he has examined. He finds that the yellow colour, so much admired, is produced in Paris either by the admixture of 2 per 100 of powdered turmeric, an ingredient perfectly harmless, and dearer than the mustard itself, or by the addition of a variable quantity of *yellow ochre*. The fraudulent dealers, again, increase the quantity of their pseudo-mustard, by adding ground bran, maize, or barley flour, or ground turnip or hemp-cake. The *ochre*, which is a compound of iron, alumina, and silica, may be detected by incinerating 100 grains of the mustard, treating the residuum with muriatic acid, and testing the solution by the appropriate reagents. The adulteration with various flours is discovered by boiling a specimen of the mustard in water, decanting when cold, and adding the tincture of iodine, which, if the mustard be thus impure, occasions a blue colour. No means of detecting the mixture of turnip or hemp-seed has yet been discovered.—*Journal de Chimie*.

SEPARATE TREATMENT OF THE INSANE YOUNG.

THE Council of Hospitals of Paris has founded a special and particular place of treatment for the young insane of both sexes, from fifteen downwards, and who are to be taken from the wards of the Bicêtre and La Salpêtrière. Too much praise cannot be bestowed on this salutary measure. The ward for the treatment of the males has been opened in the men's hospital for incurables, and for the girls in that of the incurable females. The treatment has been confided to MM. Blanche and Voisin.—*Bulletin Générale*.

DECOLORATION OF THE SULPHATE OF INDIGO BY ETHER.—Our readers will remember, that the fallacy of the sulphate-of-indigo test for nitric acid was first pointed out by Dr. O'Shaughnessy in this journal. He showed that several specimens of sulphuric and muriatic acids, the chlorate of potass, permuriate of tin, permuriate of iron, and several other substances, possessed the same bleaching power. M. Cassola of Naples has recently found, that sulphuric ether also possesses this property, when added pretty freely to the indigo solution, and allowed to stand for half an hour.

COMPOUND OF SULPHUR AND SILICA.—M. Van Mons has obtained, by exposing to a moderate heat, a mixture of equal parts of white sand and sulphur, and gradually increasing the temperature to a white heat, a porous grey very hard mass, insoluble in water and acids, and soluble in caustic potash. This solution, left to itself, gradually deposits a fine black powder, an oxide of the sulphuret of silicium.—*Repertorium für Derchem*.

HOTEL DIEU, PARIS.

CURIOUS AFFECTION OF THE VEINS. SCIRRHUS OF THE STOMACH.

On the 29th of February, 1833, a man, ætat. forty years, was received into the Hôtel Dieu, and placed under the care of Mess. Recamier and Trousseau, Salle St. Besnard. He had formerly been a soldier, but is at present a wine-merchant. The constitution of the patient is strong, and his general appearance plethoric; his face highly coloured, and he has every mark of a person enjoying habitually good health. About eight years ago he was attacked by paraplegia without any assignable cause, which remained nearly a month. The paralysis was situated in the inferior extremities, and was preceded by cramps and pains in the articulations and calves of the legs. Such was the imperfect account which we were able to procure from the patient concerning this affection: the disease was quickly removed by the application of blisters, friction, and by the employment of general blood-letting.

During the first week after his reception into the hospital, the patient was troubled with wandering pains in the arms, lower extremities, and particularly in the articulations of the knee and elbow joints, unaccompanied with any tumefaction or inflammatory deposit. These symptoms were considered as denoting the presence of rheumatic affection, and treated accordingly. The tongue was rather foul.

Ordered to take xxv grs. of *ipecacuanha*, and two draughts containing each ʒi of the *oxide of antimony*.

Feb. 15. The pain in the joints became for a few days more severe, and was then replaced by a stitch in the left side of the chest at its lower part.

20. To-day, for the first time, we noticed a remarkable phenomenon in the state of the patient; the superficial veins of both arms are affected, but not equally: the radial, basilic and cephalic veins of the left arm form tense, hard chords running under the skin from the finger to the elbow; the knots of the valves can be distinguished by the slightest touch; they are very sensitive upon pressure, and the whole arm is so painful, that extension is insupportable; we examined the internal saphenal vein, and imagined that we perceived an incipient hardening in this vessel also; but M. Trousseau was of a different opinion. The respiration of the patient is much affected; and he also feels some pain in the region of the stomach; pulse 88. The radial artery of the right side can hardly be felt beating; on the left it is more perceptible, without any fulness. The face is red and injected, but the superficial veins of the neck are not enlarged. The pulsations of the heart are dull (sourds), profound, and extended, but regular: the application of the naked ear and the stethoscope to the chest does not indicate any affection of this organ. The bowels are constipated, and the patient complains of seeing, at night, luminous spectra, spots, &c.

Ordered a purging draught, and to continue the oxide of antimony.

The affection of the upper extremities continued, sometimes better, occasionally worse, to the 8th of March: at this time there seemed to be some improvement in the state of the veins; they were less swollen, hard and painful, but the disease has extended to the saphenal veins, which resemble two hard, knotted cords running up the legs and thighs; they are very sensitive and cannot be emptied by pressure. On the 12th the patient, without any previous symptom, was suddenly seized with a vomiting of blood, which he discharged in large quantities; it is dark, grumous, and does not appear to be mixed with any contents of the stomach or alimentary canal. It appeared also that the patient has been passing dark stools of almost pure blood, but as he made no complaint, the attention of the physician was not directed to this symptom, and the blood which was discharged from the stomach, was attributed to an exudation from the gums.

These occasional vomitings and stools continued until the 16th of February, when the patient wishing to rise, fell down suddenly deprived of all sensation. In the afternoon he vomited frequently quantities of black blood mixed with clots; the vomitings take place without any effort of the patient, and the stools are always formed of dark blood. Five o'clock P.M., complete hemiplegia of the right side of the body. The left eye is affected with strabismus; the right arm is deprived of sensation and motion, it is however convulsed from time to time; the muscles of the left side of the face are paralyzed, but the tongue does not deviate much. The countenance is pale, and there is partial loss of intelligence.

Ordered sinapisms to the feet; *lemonade* with *sulphuric acid*; *julep containing* ʒss of *extract of ratanhia* with ʒiss of *syrup of cinchon*. The vomiting seemed to be particularly arrested by these means, but in the morning he died while vomiting a large quantity of the same coloured fluid as formerly described.

Sectio Cadaveris.

The body well formed, fat, and extremely muscular; the left arm only observed to be a little contracted.

Head.—The membranes sound, except a slight opaqueness of the arachnoid. The sinuses of the dura mater do not seem more gorged with blood than usual: the brain extremely firm to the touch.

Chest.—The viscera of the chest healthy; the heart appeared to be a little larger than is usual, but perfectly free from disease.

Abdomen.—The liver is sound; the left portion of the stomach is also healthy; but the right or pyloric portion is affected with a scirrhous degeneration. The parietes of the stomach, at this part, are nearly half an inch in thickness; when cut into, they present the density and blueish tint peculiar to scirrhus. The structure of the pyloric valve is unaltered. The mucous membrane of the stomach is paler than in the normal state: it does not present any trace of ulceration, fungous growth, or any adventitious growth which could have given rise to the hemorrhage. The lymphatic glands in the neighbourhood of the stomach and those of the mesentery, are scirrhous and enlarged, some of them to the size of a filbert. The mucous tissue of the intestines, like that of the stomach, is remarkably pale. The intestines contain dark matter similar to that passed by the patient during the last days of the disease.

The lower portions of the radial, basilic, and cephalic, veins, in both arms, present an evident thickening of their coats; they inclose a large quantity of fibrinous coagula, without any admixture of pus; the large arterial vessels, particularly the humeral and crural, contain similar clots.

AMSTEIN, *Interne.*

HOPITAL DES VENERIENS, PARIS.

TREATMENT OF GANGLIA WITH IODINE.

A NUMEROUS course of experiments has fully confirmed the opinion advanced by M. Ricord respecting the use of iodine employed as an external resolvent. He has obtained from it the most satisfactory results in the treatment of ganglia, which had resisted every other remedial mode, and especially in the treatment of some exceedingly obstinate cases of periostosis. The following detailed cases will illustrate the efficacy of the remedy, and the mode of its employment in ganglia,

Case 1.—A young person, ætat. 18, had a ganglion for about three weeks on the back of the hand. An attempt to rupture the tumour was only followed by its enlargement and induration, and compression had no better effect. Several pledgets of charpie were then applied, steeped in a liquid composed of three scruples of tincture of iodine, and three ounces of water. The epidermis was soon detached, the skin suffered slight cauterization, and the cure was complete after the eighth application.

Case 2.—Two tumours of the same nature in a little girl, ætat. 6, were twice treated by blows and compression without benefit, and a speedy cure was brought about by the iodine applications.

Case 3.—A girl, ætat. 18, admitted in October 1832, had a cyst, the size of a nut, on the back of her hand. The thinness of the parietes of the cyst permitted its easy rupture, and a few applications of iodine, with compression, completed the cure. The same proceeding could not be followed with a much larger ganglion, situated below the knee-joint, in the interval between the heads of the gemelli muscles. Its crushing could not be attempted on account of the slight resistance offered by the subjacent parts, and the touch, moreover, indicated that its contents were thicker than those of the cyst on the hand. Iodine alone was employed, and applied every second day, on account of the fineness of the girl's skin. A complete cure, without any direct compression, was obtained on the tenth application.

Case 4.—In the same Ward, No. 32, another female, Rosalie Cherer, ætat. 15, admitted the 28th September, had a cyst, the size of a pigeon's egg, in the same situation as that described in the preceding case. The patient could not distinctly recollect the period of its formation, for it was of several years existence, and until October 1832, had occasioned no inconvenience. It then began to increase sensibly, caused pain in the joint, and impeded its movements. Iodine was applied every second day, and after the 12th the tumour had disappeared, and the limb had regained its flexibility.

Case 5.—In places where the skin was less thick, iodine was much more rapid in its effects. A woman, named Veron, ætat. 51, admitted November 1832, had two tumours, each the size of a nut at either side of the root of the nose. They were readily displaced, and were seated immediately on the bone, and contained a thin liquid. After six applications of iodine, the patient was completely cured.

TREATMENT OF PERIOSTOSIS WITH IODINE.

Denis Gazier, ætat. 70, admitted September 1832, had been treated in 1825 for a venereal disease, and had taken a large quantity of mercurial preparations. In December 1831, two swellings commenced, one at each side of the forehead, nearly an inch above the superciliary arches. In April 1832, the tumour of the right side suppurated, and two openings formed, one central and the other lateral and external, and discharged a great quantity of pus, which did not cease to flow up to the time of his admission. The examination of the wound, however, showed that the bone was not denuded, and the tumour at the left side was ascertained to belong to the periosteum. Another of the same kind existed on the clavicle, near its articulation with the sternum. He was placed immediately on the use of the proto-ioduret of mercury internally, and the sore was dressed with ioduretted honey. The tincture of iodine, diluted with twelve parts of water, was employed on both periostoses, and in seventeen days that on the forehead disappeared; that of the clavicle six days later.

Another periostosis, seated on the clavicle, in a female, ætat. 30, admitted for syphilis, was similarly treated, and its complete resolution obtained on the eleventh dressing. During the six first days one part of tincture of iodine was used to twelve of water, and on the following days one part to eight.

We extract the preceding cases from the *Gazette des Hopitaux*. They were witnessed by our correspondent in Paris, who bears ample testimony to the surprising effects produced by the iodine.

MIDDLESEX HOSPITAL.

INFLAMMATORY ACTION OF THE CHEST, HEAD, STOMACH, KIDNEYS, &c., WITH PARALYSIS OF THE LOWER EXTREMITIES.

Mary Everett, ætat. 30, was admitted into Northumberland Ward, February 28, under the care of Mr. Mayo. She had been ailing for two years, and during that period had been under the care of several medical men, from whose advice, however, she derived little benefit. She was first attacked with acute pain in the right side, under the false rib, &c. Two months afterwards her head became affected, particularly in the morning. She experienced aching pains there, dimness of eyesight, and giddiness. Her next affection was one of the stomach. She rejected all aliment, lost her appetite, and constantly took medicine to overcome constipation. She had a severe cough, generally in the morning; and had a "wheezing noise" in the chest. After about six months more, her right hip and thigh became affected with a sense of numbness, which after some time extended to the leg, the pain of those parts becoming so severe, that she was soon prevented from walking, except with a crutch. During this time her sufferings were aggravated by retention of urine, which, when it flowed, came away in a small stream, and often only in drops. Menstruation was uninterrupted from the commencement.

Mr. Mayo remarked on this case, that the original affection was an inflammatory one of the muscles of the false rib, which being neglected for some time, communicated with the duodenum, and thus accounted for the stomachic affection; that the attack in the head was the result of sympathetic action with the stomach, and that the loss of motion in the lower extremities was caused by the disordered state of the nerves supplying those parts, consequent on the inflammatory action of the system.

She complained now of great pain when pressure was made on the false ribs, and was directed to take *rhubarb* 3 grains, *calomel* 2 grains, every night. Cupping on the chest to eight ounces. ℞ *Inf. columba*, 10 ounces; *tincture of valerian*, 2 drachms; a table spoonful every four hours.

March 2nd. Feels a little better; the pain in the side still continues, but the stomach is less affected. Cupping on the side to three ounces. ℞ Continue the pills already ordered, every night.

March 4th. Very weak; pulse slow; pain in the chest continues; the heart's action very perceptible externally; was prevented from sleeping principally by the cough. Let her have 5 ounces of wine; cupping to 5 ounces.

6th. Still very weak; complains of pain in her hip, thighs, and down the legs. Is almost unable to inspire, which she attributes to debility. The chest is slightly relieved, but the pain continues over the region of the kidneys. Discontinue the pills, and take of *sulphate of quinine*, 2 grains, every four hours; *tincture of hops*, a teaspoonful twice a day in whey. A blister over the kidneys; a hip-bath at night.

8th. The general symptoms a little relieved, but the pain in the lower extremities as severe as before. Urine comes in drops,

and whenever it increases there are darting pains through the hips and lower part of the back. Ordered a hip-bath in the evening, and 5 drops of *sweet spirits of nitre*, every six hours.

10th. Great pain all over the body; no sleep; thinks she felt no relief from the blister, the discharge from which is still kept up. The mixture disagrees with her, and causes nausea. ℞ *Acetate of morphia*, half a grain twice a day. A hip-bath at night.

12th. The pain in the lower extremities less, which she attributes to the use of the bath; bowels costive; urine passes easier. ℞ *Acetate of morphia*, 1 grain; *comp. colocynth pill*, 4 grains to be taken every night. Continue the bath and the sweet spirits of nitre.

14th. Slept for four hours last night, when she awoke with a desire to make water, which came away in drops, and gave her great pain in the loins. Soon after the pains in her lower extremities increased, and continue to this moment. At six a.m. she threw up a quantity of white frothy matter, and continued to discharge it from her stomach until half-past nine o'clock. No appetite; her digestive powers very bad; inordinate thirst. Take of *sulphate of quinine*, 2 grains, every four hours.

15th. ℞ *Diluted sulphuric acid*, 5 drops; *syrup of orange-peel*, 1 ounce; water, 2 ounces; to be taken twice a day.

17. Pains in the lower extremities less, but shooting pain in the kidneys attack her every two hours. Last night, for the first time since her entering the hospital, she perspired profusely, from which she derived considerable benefit. Her pains are remitted, although she imagines her debility has increased. This woman applied here as an out-patient rather more than two years ago, and the contrast she now presented with that of her appearance then was very striking. From a state of much health and great strength, she become to be emaciated and pale as a corpse. Apply a blister to the nape of the neck. Continue the bath in the evening. *Sulphate of quinine*, 2¼ grains; *compound colocynth pill*, 2 grains; *opium*, ½ a grain; every four hours; with 4 ounces of wine daily.

20. Spent a restless night; her stomach rejected everything that was taken since yesterday; and it was now resolved, that as all the means hitherto tried had proved ineffectual, she should be recommended to try the effect of country air. To this proposition she willingly assented, she was, therefore, supplied with 40 asafœtida pills for the stomach affection, a few pills of quinine and colocynth, to be taken when the debility increased, and to continue the use of the warm-bath whenever she was able. Discharged.

FRACTURE OF THE CRANIUM.

JOHN SNELL, ætat. 40, a servant, was brought into Percy's Ward, Feb. 20th, at five o'clock p.m., in consequence of having just fallen from a house in Harley-street (the windows of which he was cleaning) into the area, a distance of thirty feet. His external appearance, on admission, was not indicative of the serious injury which he might be supposed to have suffered. On the arrival of Sir Chas. Bell, a probe was introduced into an opening in the skin, between the left eye and the frontal suture. The sensation caused by this, the patient described to be that of a succession of electric shocks passing through him, and it seemed to affect the extremities as much as the brain. On examination, it was discovered that the frontal bone was fractured, commencing about the middle suture, and extending to the orbit of the left eye. Another fracture was also discovered, but smaller in extent, commencing about the centre of the large fracture, which it left at a right angle, and extending to the ala of the nose. It was now deemed advisable to remove the large portion of bone, which was done by slitting up the skin, and dividing the small muscle. A piece of bone was then removed, of nearly half an inch in breadth, and two inches and a half in length. On its removal, it was found that the upper part of the bone had been depressed considerably into the substance of the brain, where it was imbedded in a quantity of thick grumous blood. Immediately on the removal of the bones, he became considerably worse; complained of thirst, and nausea, and stupor came on, with a degree of irritation in the œsophagus. The small piece extending towards the ala was now removed, and was triangular in form, its base on the large fracture, its apex towards the nose. He now became quite comatose, and in this situation was left. Apply cold lotions to the head.

℞ *Calomel*, twelve grains;
Antimonial powder, eight grains;
make into pill, to be taken same night.

27th. Feels considerably worse, with a high degree of fever; pulse 110; tongue red and inflamed, but covered with whitish matter towards its centre; no sleep; quite restless; congestion increased. Apply twelve *leeches* to the temples; cold lotions to be continued.

℞ *Acetate of morphia*, two grains;
Soap pill, seven grains; make two pills, one to be taken at night.

28. Raving during the night. Towards nine a.m. his sufferings increased, and respiration was performed with so much difficulty that his breathing could be heard at twenty yards from the bed. Pulse 115; tongue white and slimy. Apply eight leeches to the temple. ℞ *Calomel*, 2 grains; *acetate of morphine*, 4 grains; *soap pill*, 8 grains; make three pills, one to be taken every four hours.

March 1. Furious delirium; pulse 117, but not so hard as before. Drank profusely of cold water, but refused everything else. Bowels free, but no urine since yesterday; and when pressed over the region of the bladder, he shrieked as if suffering agonising torture. Keep the head constantly wet with the lotion. Employ the catheter. Opium and colocynth pills were ordered, but he died at eight o'clock p.m.

NOTE FROM MR. WHITLAW.

THE LOBELIA INFLATA.—Mr. Whitlaw makes the following statements in reply to the letter of Mr. Gooch which appeared in No. 498, page 783*. In answer to Mr. G.'s remark, "that a few years ago, he procured some of the lobelia inflata from the most pure source in the city of Boston, the 'Apothecaries Hall,'" Mr. W. states, on the authority of his friend the Professor of Botany and Natural History in Cambridge University, Boston, that no such source as the 'Apothecaries Hall' exists in that city. Mr. Gooch asserts, 'that until he brought it thence, it was unknown in this country.' In reply to this, I assert that in the year 1819, when in London, I administered it to many individuals. I can confidently assert, that it was through me that the attention of Dr. Cutler, quoted by Mr. Gooch, was first called to the plant in question. It is true that Dr. Bigelow has not mentioned my name in his description of the plant; this, however, does not deprive me of my justly-merited claims, any more than of the *discoveries* of other valuable medicines whose names have not descended to posterity. Dr. Bigelow may be correctly transcribed by Mr. Gooch, but let me ask who would venture to administer tablespoonful doses of the saturated tincture mentioned in Mr. G.'s notes? Two individuals in America lately died from the injudicious use of this tincture. However contemptously Mr. Gooch may speak of me, and of my discoveries, I can tell him that long ere Dr. Bigelow had entered on his medical career, I had discovered many new plants, one of which bears my own name, the "Urtica Whitlawi, or Albany Hemp," &c.

* We regret the delay which has occurred in our notice of Mr. Whitlaw's letter; but Mr. W. is chiefly to blame, for he has made it so long (the sin of all controversialists), that we could neither find room for the entire communication, nor time, before the present week, to extract the alleged facts.—ED. L.

HORIZONTAL CUSPIDATUS.

To the Editor of THE LANCET.

SIR,—On passing lately through a cemetery, and on examining several scattered bones there, my attention was arrested by the appearance of an enamel-like substance projecting into the foramen incisivum of an apparently toothless superior maxillary bone. On removing the parts surrounding it, I perceived a perfect cuspidatus growing horizontally. Now, I am not aware of having ever read or heard of an instance of the cuspidati taking so irregular a course; which evidently must have displaced the incisors on that side; the dentes sapientiæ frequently do, and I have been obliged under such circumstances to remove the adjoining molar tooth. I have sent the specimen for your inspection and notice in your valuable work.—I am, Sir, your obedient servant,

PETER MATTHEWS,
Surgeon Dentist.

15, High-street, Great Marylebone,
April 11, 1833.

MR. BROWN'S REPLY TO MR. COW RESPECTING THE FRACTURE APPARATUS.—We have this week found time to extract from the letter of Mr. Brown the following remarks in answer to the letter of Mr. Cow. Mr. Brown denies that he gave his "unqualified approbation" of the apparatus when he first saw it, but says that he merely promised to recommend it, if upon subsequent consideration he saw reason to approve it,—which he does not. Mr. Brown says that it is two years since he was assistant surgeon of Woolwich Dock-yard, and that Mr. Cow has never had the "many communications" with him which he alleges to have held. The remainder of Mr. Brown's present letter has reference to opinions which have already been amply developed by him, and must not therefore reappear in our pages, to the exclusion of other useful matter. He does not, in conclusion, admit that any of his objections to the apparatus have been weakened by Mr. Cow's reply.

CORRESPONDENTS.

Mr. Eccles' letter again stands over.

T. M. C., Birmingham. The page should be 203 instead of 827.